City of Hamilton
PUBLIC WORKS COMMITTEE
AGENDA

Meeting #:	20-011
Date:	November 16, 2020
Time:	1:30 p.m.
Location:	Due to the COVID-19 and the Closure of City Hall All electronic meetings can be viewed at: City's Website: https://www.hamilton.ca/council-committee/council-committee-meetings/meetings-and-agendas City's YouTube Channel: https://www.youtube.com/user/InsideCityofHamilton or Cable 14

Alicia Davenport, Legislative Coordinator (905) 546-2424 ext. 2729

Pages

1. APPROVAL OF AGENDA

   (Added Items, if applicable, will be noted with *)

2. DECLARATIONS OF INTEREST

3. APPROVAL OF MINUTES OF PREVIOUS MEETING

   3.1. October 19, 2020 — 4

4. COMMUNICATIONS

5. DELEGATION REQUESTS

6. CONSENT ITEMS

   6.1. Hamilton Cycling Committee Minutes - September 2, 2020 — 15

   6.2. Hamilton Cycling Committee Minutes - October 7, 2020 — 20

7. PUBLIC HEARINGS / WRITTEN DELEGATIONS / VIRTUAL DELEGATIONS

8. STAFF PRESENTATIONS

9. DISCUSSION ITEMS

10. MOTIONS

11. NOTICES OF MOTION

12. GENERAL INFORMATION / OTHER BUSINESS

12.1. Amendments to the Outstanding Business List

12.1.a. Items Requiring a New Due Date:

12.1.a.a. Redevelopment / Reuse of the former King George School Site, at 77 Gage Avenue North

Item on OBL: V
Current Due Date: November 16, 2020
Proposed New Due Date: March 22, 2021

12.1.a.b. Moving Hamilton Towards a Zero Plastic Waste Plan

Item on OBL: AY
Current Due Date: December 7, 2020
Proposed New Due Date: February 1, 2021

12.1.a.c. Ward 1 Multi-Modal Connections Review

Item on OBL: ABD
Current Due Date: November 16, 2020
Proposed New Due Date: April 9, 2021

12.1.a.d. COVID-19 Recovery Phase Mobility Plan

Item on OBL: ABE
Current Due Date: November 2, 2020
Proposed New Due Date: December 7, 2020

13. PRIVATE AND CONFIDENTIAL

14. ADJOURNMENT

3.1

PUBLIC WORKS COMMITTEE
MINUTES 20-010

1:30 p.m.
Monday, October 19, 2020
Council Chambers
Hamilton City Hall
71 Main Street West

Present: Councillors J.P. Danko (Chair), S. Merulla (Vice-Chair), C. Collins, J. Farr, L. Ferguson, T. Jackson, N. Nann, E. Pauls, M. Pearson, A. VanderBeek and T. Whitehead

Also Present: Councillor B. Johnson

THE FOLLOWING ITEMS WERE REFERRED TO COUNCIL FOR CONSIDERATION:

1. Intersection Control List (PW20001(b)) (Wards 2, 13 and 14) (Item 6.1)

(Farr/Jackson)
That the appropriate By-law be presented to Council to provide traffic control as follows:

Intersection			Stop Control Direction		Class	Comments / Petition	Ward
	Street 1	Street 2	Existing	Requested			
Section "B" Dundas							
(a)	Glendrum-mond Drive	Westmor-eland Road	NC	EB	A	Housekeeping – missing t-type stop sign	13
(b)	Westmore-land Road	Romar Drive	NC	SB	A	Housekeeping – missing t-type stop sign	13
Section "E" Hamilton							
(c)	Astra Court	Juanita Drive	NC	NB	A	Housekeeping – missing t-type stop sign	14
(d)	Barton Street	Park Street	NB/SB	EB/WB	B	Converting to all-way – Cllr	2

Intersection			Stop Control Direction		Class	Comments / Petition	Ward
Street 1		Street 2	Existing	Requested			
	West	North				approved	
(e)	MacAulay Street West	MacNab Street North	NB/SB	EB/WB	B	Converting to all-way – Cllr approved	2
(f)	Burlington Street West	Wood Street West	NB/SB	EB/WB	A	Converting to all-way – Cllr approved	2

Legend
No Control Existing (New Subdivision) - **NC**
Intersection Class: **A** - Local/Local **B** - Local/Collector **C** - Collector/Collector

Result: **Motion CARRIED by a vote of 9 to 0, as follows:**

YES - Ward 2 Councillor Jason Farr
YES - Ward 3 Councillor Nrinder Nann
YES - Vice Chair - Ward 4 Councillor Sam Merulla
YES - Ward 5 Councillor Chad Collins
YES - Ward 6 Councillor Tom Jackson
YES - Ward 7 Councillor Esther Pauls
YES - Chair - Ward 8 Councillor John-Paul Danko
NOT PRESENT - Ward 14 Councillor Terry Whitehead
NOT PRESENT - Ward 13 Councillor Arlene VanderBeek
YES - Ward 12 Councillor Lloyd Ferguson
YES - Ward 10 Councillor Maria Pearson

2. Consent Items (Item 6)

(Collins/Farr)
(a) That Consent Items 6.2 to 6.4 be received, as presented:

(i) Sustainable Mobility Programs Annual Report 2019 (PED19124(a)) (City Wide) (Item 6.2)

(ii) Airport Employment Growth District Capital Works Update (PW19079(a)) (City Wide) (Item 6.3)

(iii) Feasibility of Accelerated Lead Water Service Line Replacement Options (PW19094(a)) (City Wide) (Item 6.4)

Result: **Motion CARRIED by a vote of 9 to 0, as follows:**

YES - Ward 2 Councillor Jason Farr
YES - Ward 3 Councillor Nrinder Nann
NOT PRESENT - Vice Chair - Ward 4 Councillor Sam Merulla

YES - Ward 5 Councillor Chad Collins
YES - Ward 6 Councillor Tom Jackson
YES - Ward 7 Councillor Esther Pauls
YES - Chair - Ward 8 Councillor John-Paul Danko
YES - Ward 14 Councillor Terry Whitehead
NOT PRESENT - Ward 13 Councillor Arlene VanderBeek
YES - Ward 12 Councillor Lloyd Ferguson
YES - Ward 10 Councillor Maria Pearson

3. Transit Passenger Shelter Advertising Agreement (PW15071(d)) (City Wide) (Item 9.1)

(Jackson/Merulla)

(a) That the single source procurement, pursuant to Procurement Policy #11 – Non-competitive Procurements, for the extension of the Hamilton Street Railway (HSR) Transit Passenger Shelter Agreement to December 31, 2022 be approved; and,

(b) That the General Manager of Public Works be authorized and directed to negotiate and execute an amendment to the Agreement and any ancillary documents required to give effect thereto with Outfront Media in a form satisfactory to the City Solicitor.

Result: Motion CARRIED by a vote of 10 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
YES - Ward 3 Councillor Nrinder Nann
YES - Vice Chair - Ward 4 Councillor Sam Merulla
YES - Ward 5 Councillor Chad Collins
YES - Ward 6 Councillor Tom Jackson
NOT PRESENT - Ward 7 Councillor Esther Pauls
YES - Chair - Ward 8 Councillor John-Paul Danko
YES - Ward 14 Councillor Terry Whitehead
YES - Ward 13 Councillor Arlene VanderBeek
YES - Ward 12 Councillor Lloyd Ferguson
YES - Ward 10 Councillor Maria Pearson

4. Solid Waste Management By-law Update (PW20066) (City Wide) (Item 9.2)

(Pearson/VanderBeek)

(a) That City of Hamilton By-law 09-067, being a by-law to provide for and regulate a waste management system for the City of Hamilton, be repealed, and that Appendix “A” attached to Report PW20066 replace By-law 09-067 as the new Solid Waste Management By-law, and;

(b) That the General Manager of Public Works or designate(s) be granted the authority to amend or replace, in whole or in part, the schedules of this Solid Waste Management By-law, attached hereto as Appendix “A”.

Result: **Motion CARRIED by a vote of 11 to 0, as follows:**

YES - Ward 2 Councillor Jason Farr
YES - Ward 3 Councillor Nrinder Nann
YES - Vice Chair - Ward 4 Councillor Sam Merulla
YES - Ward 5 Councillor Chad Collins
YES - Ward 6 Councillor Tom Jackson
YES - Ward 7 Councillor Esther Pauls
YES - Chair - Ward 8 Councillor John-Paul Danko
YES - Ward 14 Councillor Terry Whitehead
YES - Ward 13 Councillor Arlene VanderBeek
YES - Ward 12 Councillor Lloyd Ferguson
YES - Ward 10 Councillor Maria Pearson

5. Retaining Wall Repair at 9 Patrick Street, Hamilton (Ward 2) (Item 10.1)

(Farr/Collins)
WHEREAS, the property at 9 Patrick Street in Ward 2 is owned by the City of Hamilton and where the grade meets the sidewalk, debris that includes rocks, blocks, bricks, sticks and continues to fall and block safe passage for residents;

WHEREAS, Patrick Street is located along the escarpment and the grading is steep – hence, every property owner, but the City of Hamilton, has built a retaining wall as a means of addressing slope stability, aesthetics, accessibility and community safety; and,

WHEREAS, recent weather changes and erosion has resulted in this historic issue becoming serious to the residents of Corktown and especially Patrick Street;

THEREFORE, BE IT RESOLVED:

(a) That the appropriate staff be authorized and directed, as a priority, to construct a retaining wall along the frontage of 9 Patrick Street, Hamilton, to address roadway and sidewalk safety concerns which negatively impact accessibility;

(b) That the estimated cost of $15,000 to construct a retaining wall at 9 Patrick Street, Hamilton, be funded from Ward 2 Special Capital Re-Investment Reserve (108052); and,

(c) That the Mayor and City Clerk be authorized and directed to execute any required agreement(s) and ancillary documents, with such terms and conditions in a form satisfactory to the City Solicitor.

Result: **Motion CARRIED by a vote of 11 to 0, as follows:**

YES - Ward 2 Councillor Jason Farr
YES - Ward 3 Councillor Nrinder Nann

YES - Vice Chair - Ward 4 Councillor Sam Merulla
YES - Ward 5 Councillor Chad Collins
YES - Ward 6 Councillor Tom Jackson
YES - Ward 7 Councillor Esther Pauls
YES - Chair - Ward 8 Councillor John-Paul Danko
YES - Ward 14 Councillor Terry Whitehead
YES - Ward 13 Councillor Arlene VanderBeek
YES - Ward 12 Councillor Lloyd Ferguson
YES - Ward 10 Councillor Maria Pearson

6. Appeal to Metrolinx to Resume All Day GO Bus Service in Hamilton (Item 10.2)

(Farr/Collins)
WHEREAS, GO Bus service is operated by Metrolinx and is the only public bus transportation choice for Hamiltonians wishing to travel between Hamilton and Toronto;

WHEREAS, on April 8th, 2020, Metrolinx ceased much of the operation of the traditional all-day frequent express GO Bus service from Hamilton to Toronto;

WHEREAS, Metrolinx ceased valuable aspects of this express service near the start of the COVID-19 pandemic and there is no sign of resumption of service; and,

WHEREAS, for off-peak times, the consolation GO Bus service Metrolinx offers is an hourly double-decker bus to Aldershot, where accessibility is a troubling issue for passengers that can only be accommodated on the much smaller footprint lower-level of the bus (the more spacious upper level is inaccessible to many passengers who are disabled, elderly or wanting to keep a close eye on luggage that can only be stored on the lower level);

THEREFORE, BE IT RESOLVED:

That the Mayor be requested to submit correspondence to the Ministry of Transportation, Metrolinx and the Premiere of Ontario to call for the resumption of All-Day Express Bus Service levels from Hamilton to Toronto at the service level observed prior to April 8, 2020.

Result: **Motion CARRIED by a vote of 11 to 0, as follows:**

YES - Ward 2 Councillor Jason Farr
YES - Ward 3 Councillor Nrinder Nann
YES - Vice Chair - Ward 4 Councillor Sam Merulla
YES - Ward 5 Councillor Chad Collins
YES - Ward 6 Councillor Tom Jackson
YES - Ward 7 Councillor Esther Pauls
YES - Chair - Ward 8 Councillor John-Paul Danko
YES - Ward 14 Councillor Terry Whitehead

YES - Ward 13 Councillor Arlene VanderBeek
YES - Ward 12 Councillor Lloyd Ferguson
YES - Ward 10 Councillor Maria Pearson

FOR INFORMATION:

(a) CHANGES TO THE AGENDA (Item 1)

The Committee Clerk advised that there were no changes to the agenda.

(Merulla/Nann)
That the agenda for the October 19, 2020 Public Works Committee meeting be approved, as presented.

Result: Motion CARRIED by a vote of 8 to 0, as follows:

NOT PRESENT - Ward 2 Councillor Jason Farr
YES - Ward 3 Councillor Nrinder Nann
YES - Vice Chair - Ward 4 Councillor Sam Merulla
YES - Ward 5 Councillor Chad Collins
YES - Ward 6 Councillor Tom Jackson
YES - Ward 7 Councillor Esther Pauls
YES - Chair - Ward 8 Councillor John-Paul Danko
NOT PRESENT - Ward 14 Councillor Terry Whitehead
NOT PRESENT - Ward 13 Councillor Arlene VanderBeek
YES - Ward 12 Councillor Lloyd Ferguson
YES - Ward 10 Councillor Maria Pearson

(b) DECLARATIONS OF INTEREST (Item 2)

There were no declarations of interest.

(c) APPROVAL OF MINUTES OF THE PREVIOUS MEETING (Item 3)

(i) October 5, 2020 (Item 3.1)

(Ferguson/Pauls)
That the Minutes of the October 5, 2020 meeting of the Public Works Committee be approved, as presented.

Result: Motion CARRIED by a vote of 8 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
YES - Ward 3 Councillor Nrinder Nann
YES - Vice Chair - Ward 4 Councillor Sam Merulla
YES - Ward 5 Councillor Chad Collins
YES - Ward 6 Councillor Tom Jackson
YES - Ward 7 Councillor Esther Pauls
YES - Chair - Ward 8 Councillor John-Paul Danko

NOT PRESENT - Ward 14 Councillor Terry Whitehead
NOT PRESENT - Ward 13 Councillor Arlene VanderBeek
YES - Ward 12 Councillor Lloyd Ferguson
NOT PRESENT - Ward 10 Councillor Maria Pearson

(d) DELEGATION REQUESTS (Item 5)

(i) Peter McAlister, Stelco Canada, respecting a Request to Amend By-law 06-026 and By-law R84-026 (for today's meeting) (Item 5.1)

(Ferguson/Pauls)
That the delegation request, submitted by Peter McAlister, Stelco Canada, respecting a Request to Amend By-law 06-026 and By-law R84-026, be approved for today's meeting.

Result: Motion CARRIED by a vote of 9 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
YES - Ward 3 Councillor Nrinder Nann
YES - Vice Chair - Ward 4 Councillor Sam Merulla
YES - Ward 5 Councillor Chad Collins
YES - Ward 6 Councillor Tom Jackson
YES - Ward 7 Councillor Esther Pauls
YES - Chair - Ward 8 Councillor John-Paul Danko
NOT PRESENT - Ward 14 Councillor Terry Whitehead
NOT PRESENT - Ward 13 Councillor Arlene VanderBeek
YES - Ward 12 Councillor Lloyd Ferguson
YES - Ward 10 Councillor Maria Pearson

For further disposition of this matter, refer to Item (f)(i).

(e) CONSENT ITEMS (Item 6)

Councillor Danko relinquished the Chair to Councillor Merulla at 1:36p.m. due to technical difficulties.

Councillor Danko assumed the Chair at 1:47p.m.

(i) Feasibility of Accelerated Lead Water Service Line Replacement Options (PW19094(a)) (City Wide) (Item 6.4)

(Merulla/Danko)
That staff be directed to report back to the Public Works Committee on funding options for a 5 year and 10 year funding plan utilizing Water, Wastewater and Stormwater rates, general levy or any other level of government subsidy opportunities related to the capital and operating costs.

Result: Motion CARRIED by a vote of 11 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
YES - Ward 3 Councillor Nrinder Nann
YES - Vice Chair - Ward 4 Councillor Sam Merulla
YES - Ward 5 Councillor Chad Collins
YES - Ward 6 Councillor Tom Jackson
YES - Ward 7 Councillor Esther Pauls
YES - Chair - Ward 8 Councillor John-Paul Danko
YES - Ward 14 Councillor Terry Whitehead
YES - Ward 13 Councillor Arlene VanderBeek
YES - Ward 12 Councillor Lloyd Ferguson
YES - Ward 10 Councillor Maria Pearson

For further disposition of this matter, refer to Item 2(a)(iii).

(f) PUBLIC HEARINGS / WRITTEN DELEGATIONS / VIRTUAL DELEGATIONS (Item 7)

(i) Peter McAlister, Stelco Canada, respecting a Request to Amend By-law 06-026 and By-law R84-026 (Added Item 7.1)

Peter McAlister, Stelco Canada, addressed the Committee respecting a Request to Amend By-law 06-026 and By-law R84-026, with the aid of a presentation.

(Farr/Ferguson)
That the delegation from Peter McAlister, Stelco Canada, respecting a Request to Amend By-law 06-026 and By-law R84-026, be received.

Result: Motion CARRIED by a vote of 11 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
YES - Ward 3 Councillor Nrinder Nann
YES - Vice Chair - Ward 4 Councillor Sam Merulla
YES - Ward 5 Councillor Chad Collins
YES - Ward 6 Councillor Tom Jackson
YES - Ward 7 Councillor Esther Pauls
YES - Chair - Ward 8 Councillor John-Paul Danko
YES - Ward 14 Councillor Terry Whitehead
YES - Ward 13 Councillor Arlene VanderBeek
YES - Ward 12 Councillor Lloyd Ferguson
YES - Ward 10 Councillor Maria Pearson

(Ferguson/Pearson)
That staff be directed to review the request from Peter McAlister, Stelco Canada, for a water and sewer servicing solution and report back to the Public Works Committee no later than December 7, 2020.

Result: Motion CARRIED by a vote of 10 to 0, as follows:

YES - Ward 2 Councillor Jason Farr
YES - Ward 3 Councillor Nrinder Nann
YES - Vice Chair - Ward 4 Councillor Sam Merulla
YES - Ward 5 Councillor Chad Collins
YES - Ward 6 Councillor Tom Jackson
NOT PRESENT - Ward 7 Councillor Esther Pauls
YES - Chair - Ward 8 Councillor John-Paul Danko
YES - Ward 14 Councillor Terry Whitehead
YES - Ward 13 Councillor Arlene VanderBeek
YES - Ward 12 Councillor Lloyd Ferguson
YES - Ward 10 Councillor Maria Pearson

(g) GENERAL INFORMATION / OTHER BUSINESS (Item 12)

(i) Amendments to the Outstanding Business List (Item 12.1)

(Pearson/Ferguson)
That the following amendments to the Public Works Committee's Outstanding Business List, be approved:

(a) Items Considered Complete and Needing to be Removed:

(i) Sustainable Mobility Program Annual Update
Addressed as Item 6.2 on today's agenda – Report PED19124(a)
Annual reporting requirement added to the Transportation Planning Division's annual workplan, so the Outstanding Business List Item can be removed.
Item on OBL: AAC

(ii) Airport Employment Growth District (AEGD) Servicing Update
Addressed as Item 6.3 on today's agenda – Report PW19079(a)
Item on OBL: AAI

(iii) Feasibility of Accelerated Lead Water Service Line Replacement Options
Addressed as Item 6.4 on today's agenda – Report PW19094(a)
Item on OBL: ABA

(b) Items Requiring a New Due Date:

(i) To Create a Hamilton General Hospital Safety Zone
Item on OBL: U
Current Due Date: November 2, 2020
Proposed New Due Date: December 7, 2020

(ii) Operations and Maintenance of the Central Composting Facility
Item on OBL: AV
Current Due Date: December 7, 2020
Proposed New Due Date: February 1, 2021

(iii) Road Safety Review and Appropriate Measures at the York Road and Newman Road Intersection
Item on OBL: AAE
Current Due Date: October 5, 2020
Proposed New Due Date: November 16, 2020

(iv) Eligibility Audit of Clients Registered for DARTS
Item on OBL: AAQ
Current Due Date: Q3 2020
Proposed New Due Date: December 7, 2020

Result: **Motion CARRIED by a vote of 11 to 0, as follows:**

YES - Ward 2 Councillor Jason Farr
YES - Ward 3 Councillor Nrinder Nann
YES - Vice Chair - Ward 4 Councillor Sam Merulla
YES - Ward 5 Councillor Chad Collins
YES - Ward 6 Councillor Tom Jackson
YES - Ward 7 Councillor Esther Pauls
YES - Chair - Ward 8 Councillor John-Paul Danko
YES - Ward 14 Councillor Terry Whitehead
YES - Ward 13 Councillor Arlene VanderBeek
YES - Ward 12 Councillor Lloyd Ferguson
YES - Ward 10 Councillor Maria Pearson

(h) ADJOURNMENT (Item 14)

(Nann/Pearson)
That there being no further business, the Public Works Committee be adjourned at 3:34 p.m.

Result: **Motion CARRIED by a vote of 11 to 0, as follows:**

YES - Ward 2 Councillor Jason Farr
YES - Ward 3 Councillor Nrinder Nann
YES - Vice Chair - Ward 4 Councillor Sam Merulla
YES - Ward 5 Councillor Chad Collins
YES - Ward 6 Councillor Tom Jackson
YES - Ward 7 Councillor Esther Pauls
YES - Chair - Ward 8 Councillor John-Paul Danko
YES - Ward 14 Councillor Terry Whitehead
YES - Ward 13 Councillor Arlene VanderBeek
YES - Ward 12 Councillor Lloyd Ferguson

YES - Ward 10 Councillor Maria Pearson

Respectfully submitted,

Councillor J.P. Danko
Chair, Public Works Committee

Alicia Davenport
Legislative Coordinator
Office of the City Clerk

Hamilton

HAMILTON CYCLING COMMITTEE (HCyC) MINUTES

Wednesday September 2, 2020
5:45 p.m.
Virtual Meeting

Present:	Chair:	Chris Ritsma
	Vice-Chair:	Sharon Gibbons
	Members:	Ann McKay, Kevin Vander Meulen, Jeff Axisa, Cora Muis, Jane Jamnik, Gary Grogerson, Roman Caruk, Christine Yachouh, and Jessica Merolli

Absent with Regrets: Councillor Esther Pauls, Councillor Terry Whitehead, Joachim Brouwer, William Oates, Kate Berry, and Cathy Sutherland

Also Present: Rachel Johnson, Project Manager, Sustainable Mobility
Daryl Bender, Project Manager, Active Transportation
Ciaran Egan, Sustainable Mobility Student

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1. CEREMONIAL ACTIVITIES

None

2. APPROVAL OF AGENDA

(Yachouh/Merolli)

That Cycling Accommodation During Construction Detours (PED20147/PW20056) be added to today's agenda under item 10, Discussion.

CARRIED

(Yachouh/Merolli)
That the agenda of the September 2, 2020 meeting of the Hamilton Cycling Committee be approved, as amended.

CARRIED

3. DECLARATIONS OF INTEREST

None

4. APPROVAL OF MINUTES OF PREVIOUS MEETING

(i) February 5, 2020 (Item 4.1)

(Merolli/Caruk)
That the minutes of the February 5, 2020 meeting of the Hamilton Cycling Committee be approved, as presented.

CARRIED

(ii) March 4, 2020 (Item 4.2)

(Merolli/Vander Muelen)
That the minutes of the March 4, 2020 meeting of the Hamilton Cycling Committee be approved, as presented.

CARRIED

5. COMMUNICATIONS

None

6. DELEGATION REQUESTS

None

7. CONSENT ITEMS

None

8. PUBLIC HEARINGS / DELEGATIONS

None

9. STAFF PRESENTATIONS

None

10. DISCUSSION ITEMS

(i) Planning and Project Updates (Item 10.1)

Update from staff that cycling projects have been accelerated to help provide residents with sustainable transportation options during COVID-19, as part of the COVID Mobility Recovery Plan. Staff commented on several projects completed this year including Locke St. extension and Cannon St. East. Staff updated the Committee on projects which are slated for construction this year including the Keddy Trail, and projects which have been delayed.

The Committee asked questions about the Queen Street conversion and staff confirmed safety measures for cyclists were installed at the Queen St. and Hunter St. intersection.

(Vander Muelen/Jamnik)
That the updates regarding cycling infrastructure project updates be received.

CARRIED

(ii) 2020-2021 Workplan (Item 10.2)

Berry continues to work on 2020-2021 workplan, with recognition that this year is exceptional. An update will be made at the October meeting on progress made to date.

Ritsma would like to confirm if the ongoing COVID situation will affect budgets for the committee in the coming year. Staff will look into this, and return to committee with an answer in the October meeting.

Merolli would like to continue discussion for creating a workplan regarding how this committee spends and distributes its events budget. Merolli is willing to begin work on such a workplan.

(iii) Bike Month (Item 10.3)

Update from staff that Bike Month is taking place September in 2020. The annual Tour De Hospital event is happening the evening of September 2nd, and other events are being scheduled throughout the month. The City is also running a contest that includes prizes.

(iv) COVID-19 Recovery Phase Mobility Plan (Item 10.4)

In June the City released a mobility plan, recognizing shifting travel demands during COVID-10. This plan includes enhancing existing infrastructure to make it more comfortable and attractive for people of all ages and abilities to use.

Discussion was held around public engagement for these projects, which has not yet taken place. Staff confirmed that all funding for the plan came from existing sources and from Councillors.

(v) Cycling Speeds on Multi-Use Trails (Item 10.5)

Committee members expressed concern regarding high-speed cyclists on multi-use facilities. The Committee reviewed signage from Parks designed to address the issue, and asked for an update at a future meeting regarding findings from the City in regard to this issue.

(vi) Cycling Accommodation During Construction Detours (PED20147/PW20056) (Added Item 10.6)

In 2019 Cycle Hamilton delegated to Council to ask that there be better engagement with the public surrounding cycling projects. Yachouh would like to bring attention to the fact that the official motion from the Council suggests, but does not bind, the Council to do so. Additionally, the report recommends engagement prior to construction phases, which as noted by Cycle Hamilton during their presentation is too late to make comment on any of the designs. The enhanced principles recommended to Council are based on existing guidelines, which are flawed. Yachouh proposes that the Committee write a delegation to go to Council prior to the September 11, 2020 Public Works Committee Meeting.

(Caruk/Vander Muelen)
That Christine Yachouh be authorized to submit a delegation request to Public Works Committee, on behalf of the Hamilton Cycling Committee, for the purposed of delegating respecting Report PED20147/PW20056 respecting Cycling Accommodation During Construction Detours.

CARRIED

Pursuant to Section 5.4(4) of the City of Hamilton's Procedural By-law 18-270 at 7:52pm the Staff Liaison to the Committee advised those in attendance that quorum had been lost for the Hamilton Cycling Committee.

(vii) Review of HCyC Monthly Meeting Dates (Item 10.7)

The item has been deferred to the October 7, 2020 meeting, due to the loss of quorum

11. MOTIONS

The following items have been deferred to the October 7, 2020 meeting, due to loss of quorum:

(i) Elfrida (Item 11.1)
(ii) Land Use Planning (GRIDS 2) (Item 11.2)
(iii) Truck Route Master Plan Review (Item 11.3)
(iv) Bill 148, Doored But Not Ignored Act, 2019 (Item 11.4)

12. NOTICES OF MOTION

None

13. GENERAL INFORMATION / OTHER BUSINESS

None

14. PRIVATE AND CONFIDENTIAL

None

15. ADJOURNMENT

Due to loss of quorum, the meeting adjourned at 7:52 p.m.

Respectfully submitted,

Chris Ritsma
Chair, Hamilton Cycling Committee

Rachel Johnson
Project Manager, Sustainable Mobility
Transportation Planning, Planning & Economic Development

HAMILTON CYCLING COMMITTEE (HCyC) MINUTES

Wednesday October 7, 2020
5:45 p.m.
Virtual Meeting

Present:	Chair:	Chris Ritsma
	Vice-Chair:	Sharon Gibbons
	Members:	Ann McKay, Kevin Vander Meulen, Cora Muis, Jane Jamnik, Gary Rogerson, Roman Caruk, Councillor Esther Pauls, Cathy Sutherland, Councillor Terry Whitehead, Yaejin Kim, and Jessica Merolli
Absent with Regrets:		William Oates, Kate Berry, Jeff Axisa, Joachim Brouwer, and Christine Yachouh
Also Present:		Rachel Johnson, Project Manager, Sustainable Mobility Daryl Bender, Project Manager, Active Transportation Ciaran Egan, Sustainable Mobility Student Omar Shams, Project Manager, Project Manager, New Initiatives

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1. APPROVAL OF AGENDA

(Caruk/Sutherland)
That the agenda of the October 7, 2020 meeting of the Hamilton Cycling Committee be approved.

CARRIED

2. DECLARATIONS OF INTEREST

None

3. APPROVAL OF MINUTES OF PREVIOUS MEETING

(i) September 2, 2020 (Item 4.1)

(Whitehead/Pauls)
That the minutes of the September 2, 2020 meeting of the Hamilton Cycling Committee be approved, as presented.

CARRIED

4. COMMUNICATIONS

None

5. CONSENT ITEMS

None

6. STAFF PRESENTATIONS

(i) Truck Route Master Plan Review (Item 7.1)

(Whitehead/Merolii)
That the presentation given by Omar Shams, Transportation Planning, regarding the Truck Route Master Plan Review be received.

CARRIED

(Jessica/Caruk)
That Committee change the order of the agenda to discuss Motions (Item 9) prior to Discussion Items (Item 8). Discussion of Motions will be reordered to: Truck Route Master Plan (Item 9.3), Bill 148, Doored but Not Ignored Act, 2019 (Item 9.4), and Land Use Planning (GRIDS 2) (Item 9.2).

CARRIED

(Whitehead/Merolli)
That consideration of Item 9.1, respecting the discussion of the Elfrida lands be removed from the agenda for this and all future meetings. Due to the development being put on hold.

CARRIED

9. MOTIONS

(i) Bill 148, Doored But Not Ignored Act, 2019 (Item 9.4)

Merolli will edit and retable this motion for the next Cycling Committee meeting, following concerns about wording.

(Merolli/Whitehead)
That consideration of Item 9.4, respecting the Doored but not Ignored Bill, be deferred to a future meeting.

CARRIED

(ii) Truck Route Master Plan Review (Item 9.3)

Committee members had an opportunity to discuss with staff regarding the presentation and design concepts they feel would benefit cyclists.

(Whitehead/Ritsma)
WHEREAS, the Truck Route Master Plan is currently under review.

THEREFORE, BE IT RESOLVED:

(a) That the following feedback from the Hamilton Cycling Committee be forwarded to City staff for consideration within the Truck Route Master Plan review:

i) That within the scope of the truck route masterplan review, truck routes, cycling routes as identified in the cycling masterplan shall be avoided. This includes existing cycling infrastructure (for example, Cannon Street), cycling routes identified for future cycling infrastructure construction (for example, Victoria Street) and cycling assumed likely cycling routes as identified by the Hamilton Cycling Advisory Committee;
ii) That additional accommodations be made on streets where a truck route must exist beside or intersecting existing or planned cycling infrastructure. For example, limiting the hours a truck route is usable or that the route is only useable outside of peak times;
iii) That the highest safety features be added to cycling infrastructure along truck routes, wherever feasible. For example, additional separation of the cycle track/protected curb; and,
iv) That any future changes to the truck routes that interact with cycling infrastructure shall be brought to the Cycling Advisory Committee.

CARRIED

(iii) Land Use Planning (GRIDS 2) (Item 9.2)

(Whitehead/Merolli)
That consideration of Item 9.2, respecting Land Use Planning be deferred to a future meeting.

CARRIED

(Gibbons/Vander Muellen)
That the Discussion Items be re-ordered to 8.4, Delegation to Public Works October 5 regarding Climate Change Emergency Motion, 8.5 Mountain Climber, 8.1 Planning and Project Updates, 8.2 2020-2021 Budget and Workplan, 8.3 Review of HCyC Monthly Meeting Dates, and Added Item 8.6 Integrity Commissioner Investigation Report.

CARRIED

8. DISCUSSION ITEMS

(i) Delegation to Public Works Oct 5 Regarding Climate Change Emergency (Item 8.4)

Committee members Vander Meullen and Caruk presented to Public Works Committee on Monday Oct. 5. Public Works Committee accepted their delegation with some edits.

(ii) Mountain Climber (Item 8.5)

Committee members raised concerns that using the Mountain Climber program to get to Waterdown required uphill cycling not friendly to all users. Committee would like staff to investigate with HSR regarding this issue, and report back to Committee.

(Gibbons/Jamnik)
That Committee requests staff from HSR consult with Cycling Committee regarding the locations of Mountain Climber bus stops.

CARRIED

(Gibbons/Whitehead)
That consideration of the following items be deferred to the November 4, 2020 Hamilton Cycling Committee meeting due to time constraints:

(i) Planning and Project Updates (Item 8.1)
(ii) 2020-2021 Budget and Workplan (Item 8.2)
(iii) Review of HCyC Monthly Meeting Dates (8.3)
(iv) Integrity Commissioner Investigation Report (Added Item 8.6)

CARRIED

10. NOTICES OF MOTION

None

11. GENERAL INFORMATION / OTHER BUSINESS

None

12. ADJOURNMENT

(Merolli/Jamnik)
That, there being no further business, the meeting be adjourned at 7:55 p.m.

Respectfully submitted,

Chris Ritsma
Chair, Hamilton Cycling Committee

Rachel Johnson
Project Manager, Sustainable Mobility
Transportation Planning, Planning & Economic Development

CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Environmental Services Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	November 16, 2020
SUBJECT/REPORT NO:	Solid Waste Management Master Plan Five-Year Review (PW20072) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Ryan Kent (905) 546-2424 Ext. 7686
SUBMITTED BY: **SIGNATURE:**	Craig Murdoch Director, Environmental Services Public Works Department 

RECOMMENDATION

That the proposed City of Hamilton Solid Waste Management Master Plan 2020 Update be approved, as summarized in Appendix “A” attached to Report PW20072.

EXECUTIVE SUMMARY

The City of Hamilton (City) waste management system includes waste collection, processing/recycling and disposal infrastructure. To prioritize and guide the future of this system, the City established a 25-year Solid Waste Management Master Plan (SWMMP) in 2001. This original master plan included guiding principles, a waste diversion target of 65% and recommended action items for staff to carry out in support of the principles and goals. One of the objectives of the original SWMMP was to conduct regular updates to ensure that the plan was staying current and continued to meet the needs of residents and the City. The SWMMP was reviewed and updated in 2012 with revised guiding principles and action items based on new information and consultation with the public.

The purpose of this report is to seek approval of the 2020 update to the SWMMP which includes 11 new action items to guide the Waste Management system for the next five years (2021 to 2025). This timeframe also allows staff to evaluate the impacts of the

transition of the blue box program to producer responsibility set to occur by December 31, 2025.

Alternatives for Consideration – See Page 7

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: There are no financial implications associated with the recommendation in this report as all immediate action items are achieved within current capital and operating budgets. The 10-year Capital forecast for an additional (4th) transfer station / community recycling centre and other studies and possible program implementation is $29M or $21M Net of DC funding. This doesn't include major facility construction or replacement. All projects are subject to Council approval during annual budget process reviews.

Staffing: There are no staffing implications associated with the recommendations in this report.

Legal: There are no legal implications associated with the recommendations in this report.

HISTORICAL BACKGROUND

In 2001, Hamilton's first SWMMP was approved by Council. This plan established a 25-year road map for Hamilton's waste system, a diversion goal of 65% by the end of 2008 and established two guiding principles to direct the work of the SWMMP:

1. The City of Hamilton must maintain responsibility for the residual wastes generated within its boundaries. Inter-regional diversion facilities will be considered.

2. The Glanbrook landfill is a valuable resource, and the City of Hamilton must optimize the use of its disposal capacity to ensure that there is a disposal site for Hamilton's residual materials that cannot be otherwise diverted.

Notable objectives that were adopted at this time included adding organic waste collection for both single-family and multi-residential properties, investigating the option of an energy from waste facility, working towards state-of-the-art waste facilities including updating Hamilton's Material Recycling Facility (MRF) and constructing and operating new facilities such as an organics processing facility and community recycling and reuse centres.

In 2012, staff updated the SWMMP which maintained a diversion target of 65% by 2021 and revised the guiding principles to include that:

1. The City of Hamilton must lead and encourage the changes necessary to adopt the principle of waste minimization.

2. The Glanbrook landfill is a valuable resource. The City of Hamilton must minimize residual waste and optimize the use of the City's diversion and disposal facilities.

3. The City of Hamilton must maintain responsibility for the residual wastes generated within its boundaries. Inter-regional facilities may be considered for both divertible material and residual waste.

Notable objectives included an operational review of the City's transfer stations and community recycling centres, a feasibility study on single-stream recycling processing, increasing waste diversion through the green bin program and to review the SWMMP prior to its end date.

The 2020 SWMMP update serves as this review. The updated SWMMP recommends the guiding principles from the 2012 SWMMP be maintained as they are still relevant.

What has been added to the updated SWMMP is summarized in Appendix "A" attached to Report PW20072. This includes 11 action items have been established to guide Waste Management through the next five years and include:

1. Developing new waste performance metrics and related policies
2. Supporting community reduce and reuse programs
3. Updating waste audit methodology
4. Improving existing programs such as business recognition, diversion at special events and school education
5. Reviewing the trash tag program
6. Investigating the management of construction and demolition waste
7. Carrying out feasibility studies related to development options for the Materials Recycling Facility and Central Composting Facility should processing no longer be completed at our facilities
8. Developing inter-municipal policies and investigating inter-municipal partnerships
9. Preparing for the next waste collection contract in 2028
10. Increasing curb side enforcement capabilities
11. Exploring green procurement options

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

Aside from the existing City's Solid Waste Management Master Plan which directs work related to the waste management system, there are no additional policy implications or legislated requirements.

RELEVANT CONSULTATION

The following groups have been consulted or informed and are supportive of the recommendation:

Public Works Department – Environmental Services Division (Waste Collection Section and Recycling & Waste Disposal Section)
Waste Management Advisory Committee
Residents and business owners in the City of Hamilton through public consultation

ANALYSIS AND RATIONALE FOR RECOMMENDATION

There were several key tasks accomplished in developing the 2020 SWMMP update including:

1. Stakeholder consultation to receive input from the public and staff through surveys and focus groups on current waste programs and appetite for future programs and technologies for the waste system.
2. Review of programs and policies other municipalities have implemented that have contributed to improved waste system performance.
3. Identify waste technologies that are either established or emerging in other municipalities that may be applicable to Hamilton.
4. Staff evaluation of potential action items for inclusion in the SWMMP update.

At the conclusion of tasks 1, 2 and 3, the consultant hired by the City to conduct the SWMMP update provided a technical report to staff with the detailed findings of each task. The details of the key tasks are summarized below:

Stakeholder Consultation

There were two types of stakeholder consultation included in this task: an online survey and focus groups. The survey was open from January 6 to February 7, 2020. A total of 3,788 surveys were completed and it took respondents and average of 16 minutes to complete the survey. The survey included specific questions directed at residents in single-family homes and multi-residential homes as well as Hamilton business owners. Similarly, there were three focus groups carried out: the first included residents from single-family homes, the second included residents/property managers from multi-

residential buildings and the third had representatives from Hamilton's business community.

Municipal Benchmarking of Programs and Policies Resulting in Improved Waste System Performance

This task included a detailed municipal scan of the waste management programs and policies of 13 Ontario municipalities and 5 municipalities outside of Ontario. The municipalities included in this task are listed in Table 1. Many of these municipalities had SWMMPs of their own that were used as sources of information and included waste diversion targets and actions on how to realize these targets.

Table 1: Municipal Scan Subject Municipalities

Toronto	Ottawa	London	Sudbury	Guelph	Peel Region
Oxford County	Halton Region	Niagara Region	Durham Region	Waterloo Region	Dufferin County
York Region	Vancouver	Edmonton	Calgary	Halifax	Victoria

Waste Technologies

The consultant cast a wide net to identify potential waste technologies applicable to Hamilton. This included a review of readily available information from a variety of technical organizations or authorities in both the private and public sectors, by those involved in research of waste technologies, and municipalities currently involved in developing SWMMPs. Although this task identified numerous potential waste technologies, detailed further study on each technology would be needed to determine the pros and cons of each if introduced into Hamilton and the specific circumstances of its waste system.

Staff Evaluation of Proposed Action Items

The first three tasks were information gathering activities used to generate a list of potential action items. The fourth task involved staff evaluating each potential action item and determining if they would be included in the SWMMP. For an action item to be presented to staff, it had to have been supported by the public, was a program or policy that had been successful in one of the municipal scan subjects and/or found to be an established or emerging technology. There were three main factors influencing staff's selection of action items.

The first factor is the transition of responsibility for the blue box program (both collections and processing) from Ontario municipalities to producers. The City owns and contracts out the operation of its Material Recycling Facility (MRF) and contracts

out collection of recyclables throughout the City. These activities represent significant capital and operating expenditures to the City and as such there will not be any investment in facility infrastructure prior to regulations being finalized. This is currently

planned to be completed in 2025. As an example, there was strong public support in the survey for increasing the materials accepted in Hamilton's blue box program however, this was not selected as an action item due to the required capital investment in the MRF and pending regulation changes.

Second is the work that staff are already engaged in. There were some items that made the list of potential action items that staff are currently working on and therefore were not included as new action items. An example of this is working to reduce the generation and use of single-use plastics. This received strong public support and is something that many municipalities are currently working on; however, City staff are in the process of developing a strategy to reduce single-use plastics in Hamilton which includes monitoring announcements from other levels of government and as such, this was not included as a new action item in the 2020 SWMMP update.

The third factor affecting the evaluation of potential action items is long-term uncertainty. As previously mentioned, it is planned for Ontario to have new regulations on the transition of the responsibility of the blue box program. This transition is planned to occur between January 1, 2023 and December 31, 2025 and Council has endorsed a preferred transition date between April 1, 2023 and December 31, 2023. Due to the potential significant impacts of the transition of the blue box program, staff focused on the selection of action items that could be implemented over the next five years (2021 to 2025) and that would better position the City for potential uncertainty of the new blue box program. Additionally, the future of the City's Central Composting Facility (CCF) was also considered under this factor. This facility currently processes all of the green bin material collected in the City; however, there is the potential for the next operating contract of the CCF to include the processing of material off-site. Due to this fact, staff did not entertain any new action items that focused on changing the current green bin program.

2020 SWMMP Goals and Action Items

During the review of the SWMMP it was recommended the City should maintain the three guiding principles from the 2012 SWMMP as these remain relevant and there is no need to revise these. An updated waste diversion target has not been proposed in the 2020 SWMMP; however, one of the action items is for staff to determine a new waste diversion target as well as new key performance indicators (KPIs) to measure the success of the waste management system. These changes are required as current diversion rates include blue box material that most likely will not be included in Hamilton's system after the blue box program transitions to producers, and the waste

diversion rate metric will only provide partial information on program performance. As noted above, there are a total of 11 action items included in the 2020 SWMMP covering a planning period from 2021-2025. In advance of 2025 and following the transition of the blue box program, the SWMMP will be reviewed and action items updated for the next five-year period. In addition, following transition of the Blue Box program and any other significant legislation changes, the SWMMP will be reviewed to establish a new long term plan for our waste system.

ALTERNATIVES FOR CONSIDERATION

Council could decide to not approve the SWMMP in its entirety found in Appendix "A" attached to Report PW20072 and direct staff to revise the guiding principles or action items included as part of the 2020 SWMMP. This alternative would require staff to revise Appendix "A" attached to Report PW20072 and present a new SWMMP to the Public Works Committee for approval.

Financial: There are no financial implications associated with this alternative as all action items are achieved within current capital and operating budgets.

Staffing: There are no staffing implications associated with this alternative.

Legal: There are no legal implications associated with this alternative.

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Clean and Green
Hamilton is environmentally sustainable with a healthy balance of natural and urban spaces.

Built Environment and Infrastructure
Hamilton is supported by state of the art infrastructure, transportation options, buildings and public spaces that create a dynamic City.

APPENDICES AND SCHEDULES ATTACHED

Appendix "A" to Report PW20072 – City of Hamilton's Solid Waste Management Master Plan 2020 Update

City of Hamilton Solid Waste Management Master Plan 2020 Update

Table of Contents

Executive Summary

Since September 2019, Hamilton staff have worked to develop the 2020 update to Hamilton’s Solid Waste Management Master Plan (SWMMP). This update includes 11 action items that staff will carry out over the next five years (2021 to 2025) and have been selected based on public opinion, their use in other municipalities and input from staff. The planning period for this update ends at 2025 to coincide with the currently planned date for the blue box program to be fully transitioned to the responsibility of producers. This transition will have a significant impact on the waste management system in Hamilton, and Ontario as a whole, and will most likely require the City to review its SWMMP at that time.

The action items included in this update have been selected to best position the City to adapt to the transition of the blue box program and to support the guiding principles of Hamilton’s current SWMMP.

Current SWMMP and Program Performance

Hamilton's first Solid Waste Management Master Plan (SWMMP) was approved by council in 2001 and was created to establish a long-term strategy for waste in the City. This first iteration of Hamilton's SWMMP set goals for the following 25 years and included setting a waste diversion target of 65% by 2008 and two guiding principles for the SWMMP:

- The City of Hamilton must maintain responsibility for the residual wastes generated within its boundaries. Inter-regional diversion facilities will be considered.
- The Glanbrook landfill is a valuable resource, and the City of Hamilton must optimize the use of its disposal capacity to ensure that there is a disposal site for Hamilton's residual materials that cannot be otherwise diverted

The 2001 SWMMP was created to establish a strategy for waste in Hamilton for the following 25 years.

Starting in 2010, City staff began the process of updating the SWMMP and this update was approved by Council in 2012. This update reaffirmed the 65% waste diversion target from 2001 but revised the target date of meeting this goal to 2021. At that time, a third guiding principle was added:

- The City of Hamilton must lead and encourage the changes necessary to adopt the principle of Waste Minimization

Both the 2001 and 2012 versions of the SWMMP included multiple recommendations to assist Hamilton in reaching its waste diversion target. Some of the 2012 recommendations were:

- Undertake an operational review and needs analysis of transfer stations and community recycling centres
- Continue to use the Glanbrook landfill for disposal, and consider alternative disposal capacity in the next SWMMP review
- Undertake a feasibility study of expanding capacity at the Central Composting Facility (CCF)

Although many SWMMP recommendations have been fulfilled, the Council-endorsed waste diversion target of 65% has yet to be realized with the highest annual diversion rate to date being 44% which was achieved in 2013.

2020 SWMMP Update Process

Beginning in 2019, staff began the process to update the SWMMP. The goal of this process was to create an action plan for five years (2021 to 2025) that struck a balance between what the public thought were priorities, what has been successful in other municipalities and what staff saw as feasible and practical.

To inform staff in the development of the 2020 SWMMP, a consultant was hired to lead three data-gathering activities. These data gathering activities included public consultation (which

included focus groups and a survey), reviewing what programs other municipalities have successfully implemented and the direction of their SWMMPs, and a review of technological trends throughout the waste industry. For each one of these activities, a detailed technical report was provided to staff by the consultant. The next step in the process was presenting to staff the items that received public support, saw success in other municipalities and was viewed as promising technologies so they could be evaluated for inclusion in the 2020 SWMMP update. Those items that were deemed as valid options through the staff evaluation were included as action items in the 2020 SWMMP update.

Public Consultation

In updating the SWMMP it was vital to have feedback from Hamilton residents on what they liked and disliked about the current program and how they thought it could be improved. To accomplish this, two forms of public consultation were carried out, an online survey and focus groups.

The online survey was open from January 6 to February 7, 2020 and was advertised through multiple mediums to the public. The results were 3,788 completed surveys and another 1,776 partially completed surveys for a total of 5,554. Out of the total number of respondents there were 3,987 confirmed residents in single-family homes with 314 confirmed residents in apartment or condominiums. Aside from residents, the survey also solicited input from business-owners in Hamilton. The average survey completion time was 16 minutes and included a total of 88 questions that required residents to select provided options and provided the option for respondents to write-in answers. The survey did include skip logic as some question were not applicable to all residents. The survey covered the following subject areas:

- Demographics
- Current waste management system
- Multi-residential waste practices
- Single-family waste practices
- Local business waste practices
- What changes respondents would like to see in the waste system (waste collection methods, processing technologies, etc.)
- How respondents receive information and is it effective

There were three focus group sessions carried out to solicit detailed feedback from three different stakeholder groups:

- Single-family dwelling residents – 7 participants
- Multi-residential dwelling residents and property managers – 6 participants
- Local business representatives and owners – 3 participants

The focus groups covered much of the same information as the survey.

Municipal Review

The 2020 SWMMP update consisted of reviewing what actions other municipalities have included in their SWMMPs as well as reviewing what they’ve done to engage and educate their residents on waste programs, what industry best practices they’ve implemented, established future policies to support waste diversion, existing waste removal programs and services and what guiding principles the municipality has established. The reviewed Ontario municipalities were:

- Toronto
- Guelph
- Niagara Region
- Oxford County
- Ottawa
- Durham Region
- Peel Region
- London
- York Region
- Waterloo Region
- Sudbury
- Halton Region
- Dufferin County

In addition to Ontario municipalities, the cities of Calgary, Edmonton, Halifax, Vancouver and Victoria were also reviewed. This review provided valuable insight into how other municipalities achieved waste diversion targets that surpassed Hamilton’s.

Technology Review

The goal of the technology review was to identify technological options for staff to consider. The drawback of the information that was provided is that a full analysis on how the investigated technologies could be applied to Hamilton was not carried out (an example of a full analysis would be a feasibility study on the technology). There were five broad technological areas that were investigated:

- Collection Technologies
- Processing Technologies
- Conversion Technologies
- Residual Waste Management Technologies (other than landfill)
- Residual Waste Management Technologies (at landfill)

19 technologies were identified in the review that Hamilton does not currently have in place and included cart collection from single-family dwellings, mixed-waste processing, anaerobic digestion, energy from waste and landfill mining.

Staff Evaluation

Upon completion of the data gathering activities, staff were presented with a short list of potential action items. To be placed on the short list, the action items had to have received public support, all of the program and policy options had to have been proven to be successful in other municipalities and all of the technologies were identified as either emerging or established. Staff then evaluated each item based on how feasible and practical they were for the City and their value in maintaining the SWMMP guiding principles. Determining how feasible and practical action items were was dependent on two main elements: external factors

on the proposed action item; and if the item was included in work currently underway by staff. Any items that would be adversely affected by external factors outside of the City’s control or are currently being worked on by staff were not included as new action items under this update. The final piece of the staff evaluation was creating a schedule of when the selected action items could be implemented.

Factors Impacting Staff Evaluation

Transition of the Blue Box Program to Producers

Through the Waste Free Ontario Act, the responsibility of the blue box program (both collections and processing) will be transitioned away from municipalities and to the producers of blue box material. This transition will have significant impacts on Hamilton’s waste system which includes collection of recyclables from single-family homes, multi-residential buildings and businesses, and the sorting of recyclables at the City-owned Material Recycling Facility (MRF). The planned timeline for transition is from January 1, 2023 to December 31, 2025 and Hamilton City Council previously endorsed a preferred transition date between April 1, 2023 and December 31, 2023. Because of this pending transition, any potential action items that required changes to Hamilton’s blue box program were eliminated by staff as potential action items for this update. An example of this would include adding new materials to the City’s blue box program which would require capital investments in the MRF.

Future of the Central Composting Facility

All of Hamilton’s green bin material is currently processed at the City’s Central Composting Facility (CCF). This facility is owned by the City but the operation of it is contracted out. In preparing the RFP for the new operating contract, Council approved a motion in June 2020 to allow as an option for the City’s green bin material to be processed off-site by a third-party processor and to not use the CCF. Because of this potential processing change, any potential action items that required changes to Hamilton’s green bin program were eliminated by staff as potential action items for this update. Examples of this would include adding materials to the green bin program or changing how the green bin material will be processed (i.e. anaerobic digestion).

Current Action Items

The action items listed below are projects currently underway by staff and as such, have not been included as new action items for this update.

New Development Design Requirements

To guide how new developments must be designed to accommodate waste collection and provide access for residents to waste diversion programs, the City has a document entitled “Solid Waste Collection Design Guidelines for Developments”. This document is currently being revised by staff to better align with the intensification of new development in Hamilton.

Multi-Residential Data Gathering

To address data gaps and gain a better understanding of the behaviours of residents in multi-residential dwellings, staff are moving forward with site inspections and waste audits on multi-residential buildings. The data collected from the initial waste audits will be used as baseline information before implementing any new programs in the audited buildings. Data from audits carried out after the implementation of new programs will then be compared against the baseline data to conclude if a program is successful and should be expanded to all multi-residential buildings in Hamilton. Information gained from site inspections will be used by staff to populate a database on multi-residential buildings to ensure staff has updated information.

Strategy to Reduce Single Use Plastics

As per Council direction, staff is currently drafting a City strategy to reduce single-use plastics. This strategy will be provided to Council for approval prior to its initiation and focusses on restricting or banning the use and distribution of single-use plastics within City owned or City managed facilities while providing guidance to residents and businesses. This strategy will be developed to be consistent with the federal ban on single-use plastics that was announced on October 7, 2020 to come into effect by the end of 2021.

Fourth Transfer Station and Community Recycling Centre

The 2012 update to the SWMMP included a recommendation for staff to carry out an operational review and needs analysis on the City’s existing three transfer stations/community recycling centres (TS/CRCs). This study determined that a fourth TS/CRC is required as the Mountain TS/CRC would exceed its capacity shortly. Staff began the process of adding a fourth TS/CRC and this work will continue in the following years.

Optimizing Capacity at CCF

If the new operating contract for the CCF includes processing material on-site, staff will begin work to implement the required changes to the CCF to allow continued and improved operations. These changes will include seeking approval for the required investments in capital upgrades, seek the regulatory approvals for the site and oversee the installation of new equipment that will allow for expanded site operating and processing capacities to keep pace with City growth projections. Depending on the timing of some of the initial steps, it is anticipated that if required, the CCF could have approval to operate with an expanded capacity by no later than 2025.

Glanbrook Landfill Development

Staff have been completing development studies required to support the eventual, long-term Ministry of the Environment, Conservation and Parks approved expansion into Stage 4 of the Glanbrook Landfill. Preliminary Leaf and Yard Waste compost pad improvement work required to allow the current compost pad to meet the additional tonnage being generated and delaying a full relocation of the operation for at least ten years, is planned to be completed in 2020.

Route Optimization

Staff have commenced with a review of current collection vehicle routes to identify potential gains in efficiency. Currently, software is being pilot tested for use with bulk collection services and a consultant is studying the City’s collection routes. Changes to bulk collection routes are anticipated to be made in 2021. Should results of the analysis show significant savings to the City in the form of fuel, labour, capital and / or operating expenses, staff will report back to Council on the potential benefits of optimizing routes for other waste streams.

Blue Box Transition

The City has requested a transition date of April 1, 2023, although the actual approved date could be any time between January 1, 2023 and December 31, 2025. Discussions between the City and the Province will continue on the final date to try and get the best date possible for City taxpayers.

2021-2025 SWMMP Action Items

As mentioned above, this update includes 11 action items that staff will carry out over the next five years (2021 to 2025) and have been selected based on public opinion, their use in other municipalities and input from staff. These 11 action items are as follows:

Waste Performance Metrics and Related Policies

What does this action item include?

With pending legislation to transition the responsibility of the Blue Box Program to producers, over the coming years Hamilton will need to establish new measurements to track the status and performance of the waste management program. The City will also need to establish new targets to define what “success” is. Staff will need to review what the removal of the blue box means to the system and review potential metrics such as measuring the carbon footprint of waste. This will most likely include a detailed review of what metrics other municipalities have implemented and how these metrics would be applicable to Hamilton. Staff will also review potential high-level policies that will support the guiding principles and any new waste metrics that are established. A potential policy could be to ban certain items from entering the garbage stream and eventually being disposed at the Glanbrook Landfill. If an item is banned and this is communicated effectively to the public, there is the potential that this could result in positive program performance. New waste metrics would most likely have less of an impact on program performance depending on how these are communicated to residents but will provide staff and Council with greater understanding of the systems performance.

Implementation Schedule

New metrics and targets should be in place prior to the City’s requested transition date of April 1, 2023. This will require staff studies to take place throughout 2021 and early 2022 with new metrics and targets provided to Council for approval by the end of 2022. Bans on materials

should happen by the end of 2025 and potentially earlier if combined with other waste by-law updates.

Supporting Community Reduce and Reuse Programs

What does this action item include?

To support efforts to reduce and reuse waste, staff are proposing to create and enact a policy (or policies) that will provide greater support for these programs led by community groups and non-profit organizations. These policies will clearly define what types of programs can be supported and how, which could include the promotion of programs through City communications. Policy development would include input from multiple divisions within the City to reduce the risk of future policy changes unintentionally negatively impacting other groups. Clearly defining the role of staff in supporting these programs will be important to provide consistent support.

Implementation Schedule

Policy should be in place by the end of 2021.

Update to Single-Family Waste Audit Methodology

What does this action item include?

Waste audits on single-family homes is currently carried out in Hamilton as coordinated by Stewardship Ontario. These waste audits are used to generate data specifically on the blue box program and materials included in the blue box program found in the garbage stream. This action item proposes to update the waste audit methodology for single-family homes so that the audits are more in line with the goals of the SWMMP and to provide more usable and reliable data. This will involve carrying out a study to review the audit methodology and determine appropriate audit sample size, timing of audits, sample areas etc. The goal of the waste audits will also be more clearly defined to include how the data will be used (for example to target resident behaviour) and align with any new waste metrics that are developed.

Implementation Schedule

The development of new singe-family waste auditing methodology should be complete by the end of 2023.

Existing Program Improvements

What does this action item include?

This action item will focus on the review of three active Hamilton programs to determine how to most effectively improve them: business recognition, waste diversion at special events and school education on waste programs. All three of these programs will be reviewed to determine how to improve each of them.

Revising the business recognition program may require staff to revisit how commercial properties are serviced by the City, what would define a top performing business and how businesses could be recognized. Staff may also look at how to increase the popularity of the program so that the program has more recognition with restaurant patrons.

For the special event program, staff will review the Special Events Advisory Team (SEAT) process and policies to determine improvements such as expanding the program to smaller events and how to hold event organizers more accountable when required waste management practices are not met.

The current school education program centers around presentations being made to school groups mainly in the grade 5 age range. Staff will investigate more online education tools to be available to a wider range of students and how to improve the reach of this program.

Some of the work involved in improving these programs will be carried out in conjunction with the implementation of the Hamilton Strategy to Reduce Single-Use Plastics which includes action items under each of these programs.

Implementation Schedule

Focus on improving these programs will continue throughout this planning period to the end of 2025.

Trash Tag Program

What does this action item include?

Staff will review the current trash tag program to identify any opportunities to better align this program with the SWMMP guiding principles. The first piece will include data gathering (that most likely will occur at the same time as single-family audits) and then analyzing what program changes make the most sense for consideration. These changes could include the sale of bag tags, decreasing the number of tags provided to residents or having different a different number of available trash tags for different types of properties.

Implementation Schedule

Data gathering is planned to occur between 2022 and 2023 with implementation as early as 2024.

Construction and Demolition Waste

What does this action item include?

This action item will focus on completing a feasibility study to review expanding the type and quantity of C&D materials that are managed by the City and how this would support the SWMMP guiding principles. The feasibility study will specifically look at comparing the costs of increasing the scope of a City program for C&D materials against diversion rates and material disposed at Glanbrook Landfill. The feasibility study will also review how the City could

influence the management of C&D material without actually increasing the City’s role including through education and potential partnerships with local commercial operations.

Implementation Schedule

The earliest a feasibility study will be initiated is the end of 2022.

Options for MRF After Transition and CCF if Processing is Done Off-Site

What does this action item include?

Due to the transition of the blue box program and the potential for Hamilton’s organic waste to be processed at a third-party location, there is uncertainty over the use of the property that currently houses both the MRF and CCF. The goal of this action item will be to determine the most effective use of this property if one, or both of these facilities no longer function in their current capacity. This will involve staff commissioning studies on design options to maximize the space of the facility and what options exist to support the overall waste management system within the City of Hamilton. Options could range from leasing the existing MRF property to private operators for use as a MRF or as a transfer station, or transitioning the property to a City-operated transfer station and/or community recycling centre. Staff will also look at the feasibility of using the property for a more innovative waste processing option. A recommended approach could then be provided to Council for approval and staff would work towards implementing the approved approach.

Implementation Schedule

Studies are planned to commence in 2021 with the goal of implementation to begin once Hamilton transitions its blue box program. Hamilton has requested a transition date between April 1 and December 31, 2023 however this transition date is not guaranteed at this time.

Inter-Municipal Policies on Inter-Municipal Partnerships

What does this action item include?

To allow staff to investigate and potentially pursue partnerships with other municipalities that support the SWMMP’s guiding principles, a policy (or policies) must be created that sets the parameters for such partnerships. Partnerships could result in financial and environmental benefits to Hamilton. The policy should clarify the degree to which any exploratory inter-municipal working groups can progress before obtaining approval from the Waste Management Advisory Committee and / or Public Works Committee to proceed further. Creation of a policy document will provide guidance to staff in determining what they can investigate and improve response times to outreach from other municipalities.

Implementation Schedule

Creation of a new policy for approval is planned for the end of 2021.

Preparation for Next Waste Collection Contract

What does this action item include?

A new Council approved waste collection contract will be in place in 2021 and will remain in effect until 2028. Although 2028 is after the planning period of this SWMMP update, to include any major changes to the way waste is collected, investigation of new collection methods and having approvals for new collection methods must happen with enough lead time to incorporate these changes in the next waste collection contract.

The most apparent collection option is the use of carts for waste collection from single-family homes. Before implementing such a drastic change, greater investigation into resident opinion of this technology must be carried out as well as studies on the different options for implementation, associated costs and savings for both City forces and the next contract and developing a roll-out plan. Testing of carts in different neighbourhoods will also need to be included.

Aside from looking into new collection methods, staff will also complete a study on the potential benefits of alterations to the current collections schedule. This could include a realignment of collection days or number of collection days.

Implementation Schedule

Preliminary investigation activities must be complete by the end of 2024 with the implementation of any testing beginning in 2025 for a one-year period. This will allow for approvals of any proposed changes and RFP preparation to occur in 2026 and 2027.

Increased Curbside Enforcement

What does this action item include?

This action item will look at the feasibility of different enforcement options to reject garbage set out at the curb based on what is included in the container. To be effective, this would need to be supported by updated waste policies that include banning certain materials in the garbage stream from single-family homes (such as organic waste). An example of an effective method of enforcing the contents of the garbage stream at the curb is to require material to be set out in clear bags. Staff will also investigate the standardization of curbside monitoring between City and contracted collection staff. This could be done through auditing as well as education and training. A shift to using clear bags may impact the 2028 waste collection contract and as such, this work should be considered in combination with the action item for preparation of that contract.

Implementation Schedule

Standardization of enforcement and investigation of different enforcement methods, such as the required use of clear bags, is planned to be complete by the end of 2022.

Green Procurement

What does this action item include?

Staff will contribute to the development of internal policies that support the recognition of what qualifies as a “green” product and recommend preference be provided to those products. This may be coupled with the implementation of the single-use plastics strategy.

Staff can continue to develop modifications to the scoring of competitive bid proposals that recognize best practices from businesses and institutions meeting set environmental standards, including waste management.

Implementation Schedule

Completion is expected by the end of the 2025 planning period.

Agenda Item # 8.1
Report PW20072

Hamilton

2020 HAMILTON SWMMP UPDATE

Public Works Committee
November 16, 2020

ANGELA STOREY
MANAGER OF BUSINESS PROGRAMS

PUBLIC WORKS DEPARTMENT
ENVIRONMENTAL SERVICES DIVISION

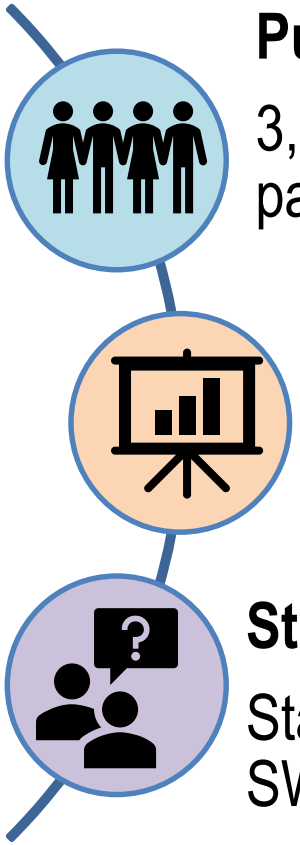
BACKGROUND

- **2001 SWMMP**:
  The original Hamilton Solid Waste Management Master Plan (SWMMP) approved in 2001 had19 action items, 2 guiding principles and waste diversion target of 65% by 2008

- **2012 SWMMP Update**:
  SWMMP last updated in 2012 and included 11 action items and revised the guiding principles to include:
  1. The City of Hamilton must lead and encourage the changes necessary to adopt the principle of waste reduction.
  2. The Glanbrook Landfill is a valuable resource. The City of Hamilton must minimize residual waste and optimize the use of the City's diversion and disposal facilities.
  3. The City of Hamilton must maintain responsibility for the residual wastes generated within its boundaries, municipal partnerships will be considered.

  2012 SWMMP maintained the target of 65% waste diversion; 2012 diversion rate was 43%

2020 SWMMP UPDATE PROCESS



Public Consultation

3,778 completed online surveys, 3 focus groups with 16 participants (single-family, multi-residential and businesses)

Best Practices

Reviewed waste programs of 18 municipalities and identified emerging and established waste technologies

Staff Evaluation

Staff evaluated each potential action item for inclusion in 2020 SWMMP update

MUNICIPAL BENCHMARKING

Research included a look at municipal Master Plans and waste programs in Ontario and Canada :

Toronto	Ottawa	London	Sudbury	Guelph	Peel Region
Oxford County	Halton Region	Niagara Region	Durham Region	Waterloo Region	Dufferin County
York Region	Vancouver	Edmonton	Calgary	Halifax	Victoria

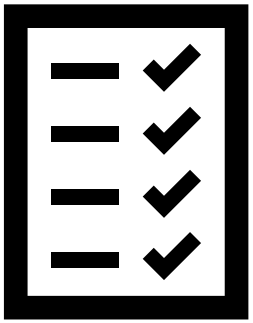
STAFF EVALUATION

Staff evaluation for possible action items was impacted by:

- Responsibility of blue box program (collections and processing) transitioning from municipalities to producers between January 1, 2023 and December 31, 2025
- Potential of processing Hamilton organics at an off-site, third-party facility
- Active projects that staff are already engaged in to support the SWMMP

Any potential action items that related to the items above, were not included as new or repeat items in the 2020 SWMMP

ACTIVE PROJECTS



Active projects that staff are engaged in and not repeated as part of the 2020 update :

- Revising waste design requirements for new developments
- Evaluating options to improve performance of multi-residential program
- Adding a fourth Transfer Station/Community Recycling Centre
- Development of stage 4 at the Glanbrook landfill
- Analyzing and commenting on new blue box regulations

2020 SWMMP FOCUS

Due to the uncertainty of the blue box and green bin programs, the 2020 SWMMP action items focus on the immediate next 5 years (2021 to 2025). This focus will best position Hamilton to adapt to significant changes in the waste industry over that time. This focus resulted in:

- 2012 guiding principles being unchanged
- Diversion targets being unchanged
- Action items focussing on reviewing policies, improving current programs and information gathering
- A 2026 date being proposed for an all new SWMMP

2020 SWMMP ACTION ITEMS

2020 SWMMP action items to be completed between 2021 and 2025:

1. Developing new waste performance metrics and related policies
2. Supporting community reduce and reuse programs
3. Updating waste audit methodology
4. Improving existing programs such as business recognition, diversion at special events and school education
5. Reviewing the trash tag program
6. Investigating the management of construction and demolition waste
7. Carrying out feasibility studies related to development options for the Materials Recycling Facility and Central Composting Facility should processing no longer be completed at our facilities
8. Developing inter-municipal policies and investigating inter-municipal partnerships
9. Preparing for the next waste collection contract in 2028
10. Increasing curb side enforcement capabilities
11. Exploring green procurement options

2020 SWMMP IMPACTS TO BUDGET

- All action items which relate to updating policies, undertaking feasibility studies and implementing new programs will all be completed within existing operating and capital budgets
- Any items that result in a recommendation to implement a program that would require additional operating / capital funding or resources, (for example: possible automated cart collection system for garbage collection), would be presented to WMAC, PWC and Council for approval

Hamilton

THANK YOU

CITY OF HAMILTON
PLANNING AND ECONOMIC DEVELOPMENT DEPARTMENT
Transportation Planning and Parking Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	November 16, 2020
SUBJECT/REPORT NO:	Public Bike Share Program Phased Procurement Process (PED20109(c)) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Peter Topalovic (905) 546-2424 Ext. 5129
SUBMITTED BY: **SIGNATURE:**	Brian Hollingworth Director, Transportation Planning and Parking Planning and Economic Development Department 

RECOMMENDATION

(a) That staff undertake a phased approach to the securement of a long-term operator for the City's bike share operations, comprising the following:

(i) Entering into a contract extension with Hamilton Bike Share Inc. for a period up to December 31, 2022 to continue operation of the existing base bike share system based substantially on the same terms and conditions as the existing agreement;

(ii) Establishing a fee-based non-exclusive contract system for the operation of micro-mobility technologies in the City right-of-way, and initiating an open, non-exclusive process for private operators to obtain the ability to operate micro-mobility technologies in the City;

(b) That staff be directed to report back to the Public Works Committee on the recommended process, structure, scope and fees for a micro-mobility contract system as well as any necessary by-law changes;

(c) That Council authorizes, directs, and delegates authority to the General Manager, Planning and Economic Development Department, to execute, on behalf of the City of Hamilton, the necessary agreements to extend the existing

contract with Hamilton Bike Share Inc. for a period up to December 31, 2022, all in a form satisfactory to the City Solicitor; and,

(d) That staff evaluate the results of the phased approach for the securement of the City's bike share operations and report back to Council no later than Q2 2022 with a recommended procurement process to secure a long-term micro-mobility operator or operators for 2023 and beyond.

EXECUTIVE SUMMARY

The purpose of Report PED20109(c) is to recommend a path forward for the continued operation of the Hamilton bike share service, as part of the City's overall micro-mobility program, as directed by Council on May 27, 2020 (Report PED20109(a)) that "staff be directed to initiate a competitive procurement process with a goal of identifying a preferred long-term operator for the SoBi Bike Share program and report back to Council with the results of the procurement process prior to the end of 2020."

Hamilton Bike Share Inc. (HBSI) has been approved by Council as the interim bike share operator until at least March 1, 2021.

In order to inform the procurement process, staff initiated a micro-mobility feasibility study in July 2020 attached as Appendix "A" to this Report. Along with the feasibility study, staff have also been investigating alternatives for a broader suite of micro-mobility options, including electric kick style scooters (e-scooters), following the recent legislation from the Province of Ontario permitting the use of e-scooters subject to the passing of enabling municipal by-laws.

The results of the feasibility study indicate that the most stable bike share systems operate with a municipally-owned and operated base bike share system alongside a private sector non-exclusive contract-based micro-mobility system. Taking this into consideration, this Report recommends a phased procurement process that would establish such a "hybrid" model for a two-year period for 2021 and 2022. It would extend the existing "base" bike share operations under the existing operator HBSI, at no cost to the City, for two more years, while at the same time, opening the market to other private operators who may wish to operate a micro-mobility system through a non-exclusive contract and application process.

It should be noted that there is a high degree of fluidity in the current market with respect to micro-mobility operators, compounded by the effects of COVID-19 on overall travel activity and economic uncertainty. As such, there is a degree of risk associated with any model for micro-mobility over the next few years. The current bike share HBSI operator is not insulated from these risks, given their reliance on user memberships and usage fees.

Extending the contract with the current not for profit operator is seen as having the highest potential to maintain a bike share program in the near term, while also allowing time to foster other models that lead to the creation of a robust micro-mobility system for the longer term.

Alternatives for Consideration – See Page 10

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: Under the current contract with HBSI, the City does not contribute any funding for operations. The proposed phased procurement approach would extend this contract for a two-year period, still at no operating cost to the City.

The existing bike share assets, including bikes and stations, would continue to be owned by the City. Day-to-day maintenance of the City's assets would be the responsibility of HBSI, at no cost to the City. Any expansions or major investments in the City's bike share assets, such as the purchase of new bikes, new stations, or new controllers, would be the responsibility of the City and would be subject to the Council budget approvals process. The City currently has approved capital funding for bike share enhancements in the amount of $460,000 for bike share controller enhancements through the Ontario Municipal Commuter Cycling Program (OMCC) (Project ID 4661817124) which has been extended to December 31, 2021 by the Province. Additionally, as outlined in Council Report PW19083/FCS18048(a) $500,000 in capital has been approved as part of the Investing in Canada Infrastructure Program for the expansion of bike share and associated infrastructure. With this investment, it is anticipated that the existing fleet can be kept in sufficient condition for the duration of the two-year extension.

The procured non-exclusive contract-based program for private sector operators is expected to be revenue-generating. The revenues will be used to fund the enforcement of proper use of the right of way and to offset the operations cost of the base bike share program.

Staffing: There are no staffing implications associated with this Report. The micro-mobility program will continue to be managed by existing staff resources within the Transportation Planning and Parking Division of the Planning and Economic Development Department.
Administration of the non-exclusive contract-based system will be managed by Transportation Planning and Parking using existing staff.

Enforcement of the right-of-way, when the non-exclusive contract-based system is operational, will be managed by the Licensing and By-law Services Division. This Report does not recommend any new enforcement staff. However, staff will monitor uptake of the program, and if uptake warrants additional enforcement staff resources, then staff will report back to Council with a recommendation to allocate a portion of the contract fees towards enforcement resources.

Legal: Legal staff will review and approve all agreements and contracts associated with this Report.

HISTORICAL BACKGROUND

Since 2015, Hamilton's bike share program has been an integral part of the way residents and visitors move around the City. However, as the micro-mobility market has evolved with the entry of venture-funded companies, dockless technologies, and electric vehicles, Hamilton's bike share system now operates in a very different environment from when it launched. Adding to the urgency for change, Uber's decision to cease operating the system, as of June 2020, puts the long-term sustainability of the City's bike share system at risk.

On May 27, 2020, Council approved a Motion (Item 6.4) including part (b), that "staff be directed to initiate a competitive procurement process with a goal of identifying a preferred long-term operator for the SoBi Bike Share program and report back to Council with the results of the procurement process prior to the end of 2020."

Following this meeting, as an interim solution, in June 2020, the City entered into a provisional contract with the non-profit operator, HBSI, who was previously contracted to operate the bike share program by Social Bicycles LLC, the successful proponent of the original request for proposals process in 2013. HBSI also operates the City's bike share equity program, the Everyone Rides Initiative.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

Recommendation (a)(ii) of this Report refers to a fee-based non-exclusive contract system for the operation of micro-mobility technologies, which could include modes in addition to bike share, for example, commercially operated e-scooters. At the present time, the operation of e-scooters is not permitted on City streets or sidewalks. Under the Provincial pilot program announced in November 2019, e-scooter use within a municipality is not allowed unless a municipality permits their use by municipal by-law. Accordingly, Council would need to approve a by-law to permit e-scooters if they are to be included in the suit of mobility technologies under the non-exclusive contract system

for the operation of micro-mobility technologies. A separate report on E-scooters for Council consideration is being prepared by staff.

If Council elects to adopt a by-law to permit e-scooters on City streets, then e-scooters will be included within the recommended contract procurement. If Council elects not to adopt a by-law to permit e-scooters on City streets, then the recommended contract procurement will not include e-scooters.

RELEVANT CONSULTATION

Several internal stakeholders were consulted as part of the development of this Report including:

- Transportation Operations and Maintenance (TOM);
- Hamilton Municipal Parking Service (HMPS); and,
- Licensing and By-law Services.

Staff from the following organizations were interviewed for the study "Hamilton Shared Micro-mobility - Assessment of Operating Models, Funding Sources, and Role of Not-For-Profit Organizations" attached as Appendix "A" to this Report:

- City of Toronto;
- City of Kelowna;
- City of Philadelphia, Pennsylvania; and,
- City of Arlington, Virginia.

Information from additional cities was also used to develop this Report including Montreal, Vancouver, Seattle, Washington, Portland, Oregon, Washington DC and, Minneapolis, Minnesota.

Organizations represented on the City's Mobility Lab focus group were consulted as part of a public workshop. This included members of the Cycling Committee, Cycle Hamilton, Environment Hamilton, McMaster University, Mohawk College, Hamilton Health Sciences, Smart Commute Employer partners and residents. In addition to this group, HBSI was also consulted.

The Recommendations contained in this Report draw on best practices emerging from professional organizations researching and informing practice in micro-mobility, and which have already been instituted in many cities across North America and around the world including the North American Bike Sharing Association (NABSA), the National Association of Transportation Officials (NACTO), and Share The Road.

ANALYSIS AND RATIONALE FOR RECOMMENDATION(S)

Operating Models

As part of the preparation of this Report, several potential options for the provision of bike share and other micro-mobility options were explored including:

(a) Exclusive for-profit or non-profit operator contracted to the City and secured through a competitive RFP process;
(b) Non-exclusive permit-based open to all operators; and,
(c) Hybrid mix of non-exclusive permit-based operators and a contracted operator (this is the approach recommended in this Report).

The recommended approach is the hybrid mix of non-exclusive permit-based operators operating in parallel with an exclusive contracted operator for the City's existing, base bike share system. The recommended approach has the highest potential to ensure the continued operation of the City's existing base bike share system at no cost to the City, while welcoming the introduction of new, private sector for-profit operators to augment the base system and create a robust micro-mobility market.

A peer review of nine North American cities revealed that cities which already had successful bike share systems, before the rise of venture-funded operators, have pursued hybrid operating models involving: non-exclusive contract-based (sometimes also referred to as permit-based) systems, where operators pay the city for the right to operate their dockless vehicles in the right of way, alongside a city-run contracted "base system" where the city has control over operations, usually set up as a public-private partnership. Hybrid arrangements allow cities to have direct operational control over at least one of the operators to ensure that strategic mobility, equity, and community engagement goals are met while also allowing healthy competition in the market to encourage technology and process improvements and low prices to the end users. The City-run bike share systems are supported structurally and financially by these cities; whereas, the for-profit non-exclusive contracted or permitted systems are supported and funded by the private sector.

Peer cities that did not have existing well-run bike share systems before dockless technology arrived typically opted for a non-exclusive contract or permit-only arrangement. The three reviewed peer cities that do not have a permitting system but have long-running bike share systems — Vancouver, Toronto, and Philadelphia — are in jurisdictions that prohibit shared e-scooters. It is likely that these cities may also adopt a hybrid model if shared e-scooters become legal in these jurisdictions.

The City of Hamilton is well-positioned to manage a hybrid system. The existing base bike share system is being successfully operated by HBSI at no cost to the City. HBSI

has expressed a willingness to continue this operation. With respect to a parallel permit-based system, the City's Licensing and By-law Services Division is already equipped to enforce vehicles stored in the right-of-way and work is progressing to implement the necessary by-law changes and enforcement regime to allow shared e-scooters, if Council ultimately decides to permit them.

One difference between the hybrid model in other cities and Hamilton is that the current bike share system operated by HBSI is entirely reliant on revenue through user fees, grants, advertising and donations to cover operating costs. As such, it will be important to ensure that there is a net positive benefit of opening the market to other operators as opposed to simply dividing a limited market among more operators.

As with transit and parking in the City, the COVID-19 pandemic's effect on the economy and on commuting to work has had an impact on revenue generation for bike share.

Contracted Operator for Base (Existing) Bike Share System

This Report is recommending that the existing contract with HBSI, which is scheduled to expire on February 28, 2021, be extended to the end of December 2022, under the same terms and conditions as the existing contract.

Under this current contract, HBSI operates the bike share system at no cost to the City. This includes bike balancing, bike maintenance, hub maintenance and customer service. HBSI maintains the rights to advertising and sponsorship under this contract and sets the price to access the existing "SoBi system" bikes.

The bike share hubs, bike share bikes and the controller modules that connect the GPS, electronic lock, and internet-based access to the bikes, are the property of the City of Hamilton and the City is responsible for the connectivity of the bikes.

Non-Exclusive Permit-Based Operators

This Report is recommending opening up the City's micro-mobility system to other operators, on a non-exclusive basis, subject to a City-issued contract and payment of operations fees to the City. This contract-based system would operate in parallel with the existing base bike share system that is recommended to be operated by HBSI. Operators would apply for a non-exclusive contract to operate and store micro-mobility devices in the City's road right of ways. In exchange for the use of the right of way, the operators pay the City a set of operations fees and enforcement fees. Micro-mobility devices could include pedal bikes, electric pedal assist bikes, electric stand-on-top scooters, and electric sit-on-top scooters, however, it is important to note that the use of scooters is subject to Council's approval of a by-law permitting commercial e-scooter

operations in the City. The City would also enforce the proper storage of micro-mobility devices in the right-of-way and issue fines if the devices are not properly stored.

Based on a review of other systems, it is proposed that the City of Hamilton establish a fee structure that is comprised of:

- an application fee;
- set fees based on number of operating units;
- usage based fees; and,
- a security deposit to cover any costs incurred to the City as a result of non-compliance, such as removing and storing abandon devices.

The application fees charged in other jurisdictions range from $2,000 to $5,000. Operations fees are an average of $40 to $60 per device and $0.05 to $0.15 per trip. Security deposits are usually $15,000 to $25,000 but vary from municipality to municipality. Operations fees are usually based on the number of units in operation, with minimum and maximum charges. There is typically no maximum set on trip-based fees.

The non-exclusive permit program for private operators is expected to be entirely self-funded by fees, which will be set as part of the application process. This Report will be presented once Council has had the opportunity to consider, and make a decision, on whether to opt in to permit e-scooters to operate in the City. The fees would cover enforcement costs and would also offset operating costs of the base bike share system operated by HBSI. While it is very difficult to predict the level of interest in a permit program given the uncertainties of COVID, it is estimated, that under normal conditions, a contribution of $50,000 - $150,000 per year could be supported through the above fee structure depending on the number of operators, number of devices in operation, and the amount of trips taken.

Potential for Geographic Expansion

The recommended approach would continue the existing “base system” for the bike share program within the existing geographic area that covers Wards 1, 2, 3, and a portion of Ward 4 immediately east of Ottawa Street. Continuation of the existing bike share service within this geographic area would be a requirement of the contracted bike share operator HBSI.

Both the contracted operator HBSI, as well as any operators operating under the parallel permit-based system, would be allowed under the recommended approach to operate micro-mobility services in any part of the City.

Based on the expansion analysis contained in Appendix "A" attached to this Report staff anticipate that neighbourhoods in Wards 4 to 8 and Ward 14 show the highest potential demand for micro-mobility, and are potential candidates for expansion.

The propensity for micro-mobility is measured by factors such as presence of cycling infrastructure, population and employment density, presence of higher-order transit, and presence of key destinations like community centres and higher education institutions. The analysis in Appendix "A" attached to this Report highlights that areas around Mohawk College, St. Joseph's Healthcare Hamilton West 5th Campus, Kenilworth Avenue corridor, Upper James Street corridor, the Mountain Brow Trail, Concession Street, and Eastgate Square are likely to have the highest potential for future expansion. These results are similar to the Mountain Bike Share Feasibility Study conducted by the City in 2016.

Other strategic areas for expansion that have other attributes such as strong cycling culture, suitable topography, strong local community support, and a wealth of key destinations include:

- Local community hubs such as downtown Ancaster, downtown Stoney Creek, Concession Street commercial area, and downtown Waterdown;
- Local attractions such as conservation areas; and,
- Future regional transit hubs, namely Confederation GO station.

The biggest barrier to system expansion is cost. For example, based on current station density in Hamilton, placing four stations per square-kilometre with 6.4 bikes per 1,000 residents to serve a 30 square kilometre expansion area would require 120 new stations and 557 bikes at a capital cost of roughly $2.3 M. In addition, ongoing operating costs for an expansion of that scale would be about $435 K annually.

Whether to expand the geographic service area would be a business decision of the operators. However, through the permitting process, contracted operators will be encouraged to operate in more areas of the City.

Everyone Rides Initiative

Hamilton's Everyone Rides Initiative (ERI) would continue to operate under the recommended model.

The ERI is an initiative of HBSI and operates independently and at no cost to the City. It provides cycling education, outreach, discounted access to the bike share system, advice and support to the City on system expansion, and promotes a range of initiatives that remove barriers to cycling across the City.

Regardless of the operating model, most of the cities reviewed also had equity considerations built into the shared micro-mobility programs, although few are as comprehensive as the ERI. These include discounts for low income riders, alternative payment arrangements for those without credit cards and/or smartphones, requirements or incentives for operators to deploy some of their fleet in marginalized neighbourhoods, and targeted system expansion plans to ensure equitable distribution.

To-date the ERI has only had to consider equity issues related to the City's bike share system. Looking ahead, if non-exclusive contracted private operators are welcomed into the City, a program based on the same principles as the ERI program could be expanded to cover all shared micro-mobility in Hamilton regardless of operator or vehicle type.

ALTERNATIVES FOR CONSIDERATION

Alternative Option 1: Exclusive for-profit or non-profit operator contracted to the City and secured through a competitive RFP process

The City could immediately launch a procurement process to secure a single operator for micro-mobility in the City, including the existing bike share program, and exclusive rights to operate other forms of micro-mobility, including e-scooters, if ultimately permitted by the City. This is not the recommended approach as it creates uncertainty and risk to the continued viability of the City's existing bike share program, and the market for other forms of micro-mobility in the City is uncertain and untested.

Alternative Option 2: Non-exclusive permit-based open to all operators

The City could open up the operation of micro-mobility technologies, including bike share and e-scooters, to any for-profit or non-profit entity, through an open permit-based program. This is not the recommended approach as it creates uncertainty and risk to the continued viability of the City's existing bike share program, and the market for other forms of micro-mobility in the City is uncertain and untested.

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Community Engagement and Participation

Hamilton has an open, transparent and accessible approach to City government that engages with and empowers all citizens to be involved in their community.

Economic Prosperity and Growth

Hamilton has a prosperous and diverse local economy where people have opportunities to grow and develop.

Healthy and Safe Communities
Hamilton is a safe and supportive City where people are active, healthy, and have a high quality of life.

Clean and Green
Hamilton is environmentally sustainable with a healthy balance of natural and urban spaces.

Built Environment and Infrastructure
Hamilton is supported by state of the art infrastructure, transportation options, buildings and public spaces that create a dynamic City.

APPENDICES AND SCHEDULES ATTACHED

Appendix “A” – Hamilton Shared Micro-mobility - Assessment of Operating Models, Funding Sources, and Role of Not-For-Profit Organizations

PT:cr

Final Report

Hamilton Shared Micro-Mobility

Assessment of Operating Models, Funding Sources, and Role of Not-For-Profit Organizations

Prepared for City of Hamilton
by IBI Group
November 5, 2020

Executive Summary

Since 2015, Hamilton's bike share program has been an integral part of the way residents and visitors move around the city. It is the only public bike share in the Greater Toronto and Hamilton Area (GTHA) outside Toronto and has been recognized by the Transportation Association of Canada and Canada Clean 50 as a model for sustainable urban transportation. As of early 2020 prior to the pandemic, some 5% of Hamiltonians, nearly 27,000 people, are active members and they make over 30,000 trips a month.

As the micro-mobility market has evolved with the entry of venture-funded companies, dockless technologies, and electric vehicles, the program now operates in a very different environment from when it launched. Adding to the urgency for change, Uber's decision to cease operating the system as of June 2020, the lack of penalties for breaking that contract, and the lack of dedicated sources for operating funds together put the system in a precarious state.

This study is intended to identify the most suitable operating model to provide sustainable shared micro-mobility in Hamilton and leverage the wide range of new technologies in the market, as well as identify suitable non-tax-based funding sources, and potential expansion areas.

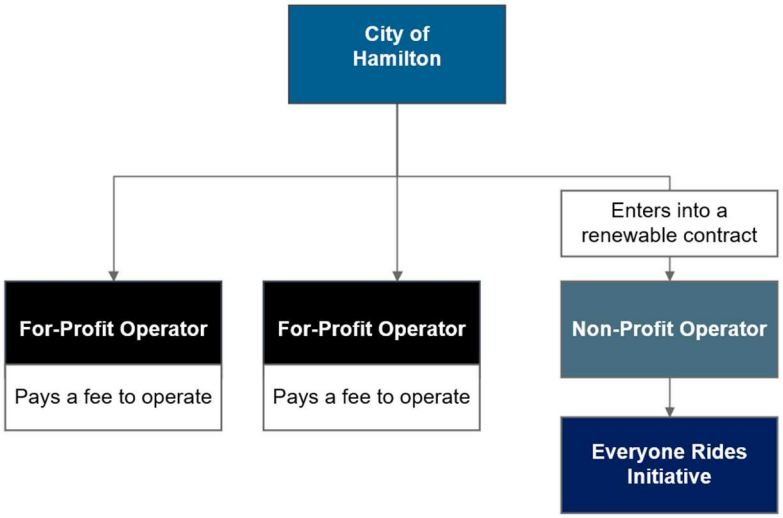
A contracted operator with dedicated funding alongside permitted operators that pay to operate and would be the best operating model for Hamilton

A peer review of nine North American cities revealed that cities that already had successful bike share systems before the rise of venture-funded operators have pursued hybrid operating models: Permit-based systems, where operators pay the City for the right to run their dockless vehicles, plus a City-run contracted system where the City has control over operations. Hybrid arrangements allow cities to have direct operational control over at least one of the operators to ensure that strategic mobility, equity, and community engagement goals are met while also allowing healthy competition in the market to encourage technology and process improvements and low prices to the end users.

Peer cities that did not have existing well-run bike share systems before dockless technology arrived were the ones that opted for a permit-only arrangement. The three peer cities that do not have a permitting system but have long-running bike share systems—Vancouver, Toronto, Philadelphia—are in jurisdictions that prohibit shared e-scooters. It is likely that these cities would also adopt a hybrid model if shared e-scooters become legal. Exhibit ES1.1 illustrates the proposed organizational structure for Hamilton.

The City of Hamilton is also well equipped to manage this type of hybrid system. The City's Licensing and By-law Enforcement Division is already equipped to enforce a permit program working with the Sustainable Mobility Program Manager and has already started review of the necessary by-law changes to allow shared e-scooters. The Sustainable Mobility Group can operate and manage the permit program on an ongoing basis. Under the current terms, the City can renew the current contract in February 2021, maintaining the current program and avoiding the costs and disruption of a procurement process. A renewal would also give the City time to assess how well the model works until the end of 2022, at which time a decision on a permanent model can be made.

Exhibit ES1.1: Illustration of Proposed Organizational Structure for Future Shared Micro-Mobility in Hamilton



Regardless of the operating model chosen, the principles of Hamilton's Everyone Rides Initiative should apply to all shared micro-mobility in the city

Hamilton residents and Council strongly supports providing equitable access to a range of sustainable transportation options across the city, and the Everyone Rides Initiative (ERI) currently run by HBSI is one way this is achieved. The program provides cycling education, outreach, discounted access to the bike share system, advice and support to the City on system expansion, and promotes a range of initiatives that remove barriers to cycling across the city.

Regardless of the operating model, most of the cities reviewed had equity considerations built into the shared micro-mobility programs, although few are as comprehensive as the ERI. These include discounts for low income riders, alternative payment arrangements for those without credit cards and/or smartphones, requirements or incentives for operators deploy some of their fleet in marginalized neighbourhoods, and targeted system expansion plans to ensure equitable distribution.

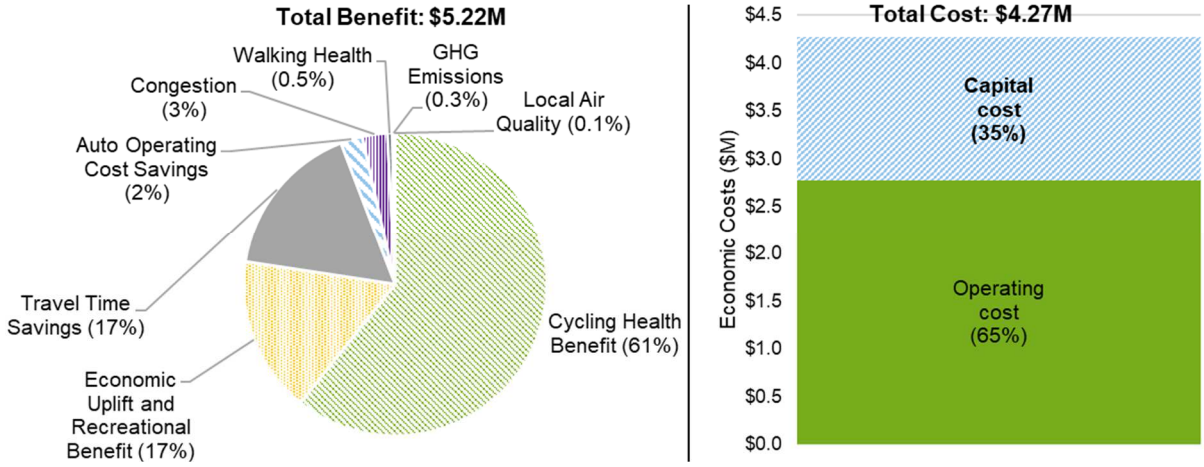
To-date the ERI has only had to consider equity issues related to the City's bike share system. Looking ahead, if permit-based operators are welcomed into the city, a program based on the same principles as the ERI program should be expanded to cover all shared micro-mobility in Hamilton regardless of operator or vehicle type. A portion of funding to offset costs of the expanded program should be paid by the permitted operators as a condition of their permits.

The economic case for shared micro-mobility has a benefit-cost ratio of 1.2, plus unmonetized Mobility, Equity, and Road Safety benefits

The business case for shared micro-mobility in Hamilton in this study considers the financial, economic, strategic, and deliverability cases, consistent with Metrolinx Business Case Guidance, which is used to assess transportation investments across the GTHA. The economic case for the contracted operation has a benefit-cost ratio of 1.22 and net benefit of $951,000 over five years as shown in Exhibit ES1.2. This does not, however, include Mobility and Equity benefits that come from providing a reliable, affordable public transport option to residents who currently do not drive and find it hard to access fixed-route transit. It also does not include Road Safety benefits due to having fewer cars on the road since there is insufficient GTHA-specific data to quantify the safety benefit of switching from driving to micro-mobility.

Cycling health benefits have been discounted by 50% compared to the Metrolinx guidance, recognizing that the future system may include electrified and motorized micro-mobility devices that require much less pedalling effort and therefore have lower health benefits.

Exhibit ES1.2: Economic Benefit-Cost Analysis of Shared Micro-mobility in Hamilton (2021-2025 Projection)



About 40% of the cycling health benefit comes from auto drivers switching to shared bikes. Some 50% of the cycling health benefits come from transit riders switching to the shared bike service. While this is a large proportion, this diversion from transit only accounts for 0.5% of HSR's annual ridership while providing potentially significant health benefits to users who choose the more active mode. These transit riders who switch are also those whose transit rides are less convenient, for example due to long distances to the bus stop or infrequent service.

The benefits of increase patronage of retail businesses that cyclists tend to bring compared to drivers (Economic Uplift) and the quality of life improvement to residents that would have a new reliable, affordable way to access the city's parks, green spaces, and other key non-work and non-school destinations (Recreational Benefit) are not easily monetized. Therefore, the Economic Uplift and Recreational Benefit is assumed to be worth 20% of the other monetized benefits.

The financial case shows that the net incremental costs of running the hybrid program from 2021-2025 is $3.5M, which includes periodic replacement of end-of-life assets and fare revenue.

Shared micro-mobility also aligns with the City's strategic priorities of Community Engagement, Healthy & Safe Communities, Clean & Green, and support Built Environment & Infrastructure through supporting multimodal transportation. It can provide a reliable and affordable alternative to the 230,000 daily auto-driver trips in Hamilton that are less than 5 km long.

Potential non tax-based revenue sources can generate funds to cover portions of the annual operating costs

Non-tax-based funding sources tend to cover all operating costs in the peer cities reviewed. Title sponsorship is an often-used option in the US, usually covering 30-60% of net operating costs for systems able to secure a sponsor. Healthcare-related businesses like insurance companies and hospital networks as well as prominent multi-national companies based in the host cities are sometimes eager to provide funding. This is less prevalent in Canada, but it is reasonable to expect under a conservative scenario that Hamilton could generate some $150,000-$200,000 per year in sponsorship, advertising, and donations.

According to the North American Bike Sharing Association, over 55% of all bike share systems are supported through municipal financial contributions, usually from municipal revenue sources.

Three municipal revenue sources for Hamilton's system were investigated as potential non-taxed based funding sources:

- A portion of net revenues from municipal parking in combination with an increase in parking fees or fines;
- A new micro-mobility reserve funded through fines generated by the City's Red-Light Camera program, although this would require additional research to determine if there is a precedent in Ontario for using these funds in this way; and
- Accessing a small portion of the Gas Tax for Transit revenue that the City receives from the provincial and federal governments to fund initiatives that support transit ridership. This also requires additional research to determine whether these funds can be used for capacity-building operational costs in addition to capital costs.

The above would be in addition to fees generated from the permit-based program, which is expected to be entirely self-funded by permit fees. Additionally, permitted operators would be expected to contribute $45,000-$150,000 per year toward the ERI program.

Neighbourhoods in Wards 4-8 and 14 show the highest potential demand for micro-mobility, and are potential candidates for expansion

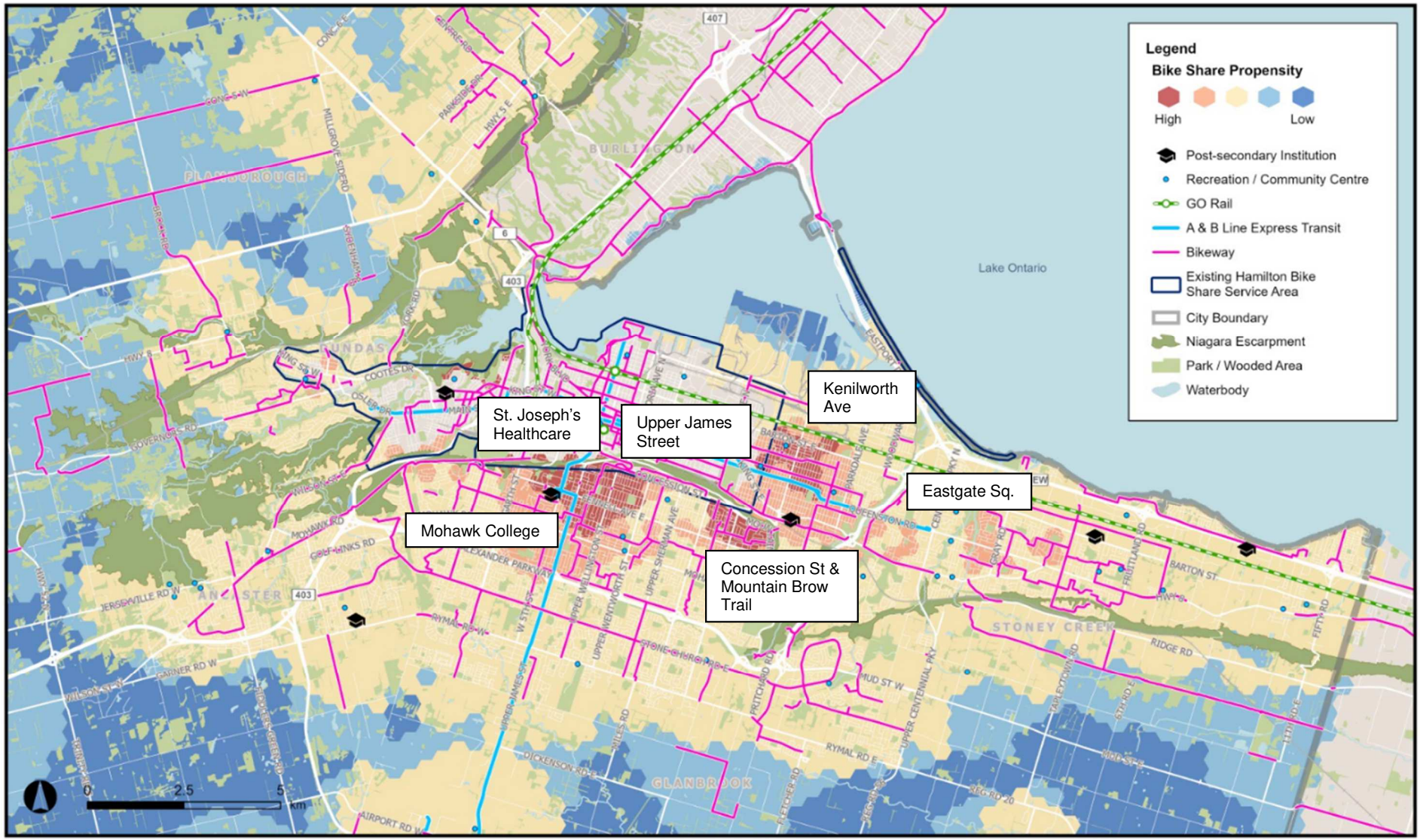
In this study the propensity for micro-mobility is measured by factors such as presence of cycling infrastructure, population and employment density, presence of higher-order transit, and presence of key destinations like community centres and higher education institutions. Exhibit ES1.3 illustrates where in Hamilton outside the existing service area has the highest propensity. The map highlights that areas around Mohawk College, St. Joseph's Healthcare Hamilton West 5th Campus, Kenilworth Ave corridor, Upper James St corridor, Concession St & the Mountain Brow Trail, and Eastgate Square should be the highest priority for future expansion. These results are similar to the Mountain Bike Share Feasibility Study conducted by the City in 2016.

Based on current station density in Hamilton, placing 4 stations per square-kilometre with 6.4 bikes per 1,000 residents to serve the roughly 30 km^2 expansion area would require 120 new stations and 557 bikes at a capital cost of roughly $2.3M. In addition, ongoing operating costs for the expansion would be about $435,000 annually. This expansion would be rolled out gradually as funding becomes available.

Other strategic areas for expansion that have other attributes such as strong cycling culture, suitable topography, strong local community support, and a wealth of key destinations include:

- Local community hubs such as downtown Ancaster, downtown Stoney Creek, and downtown Waterdown;
- Local attractions such as conservation areas; and
- Future regional transit hubs, namely Confederation GO station.

Exhibit ES1.3: Map showing areas outside current service area with highest propensity for micro-mobility



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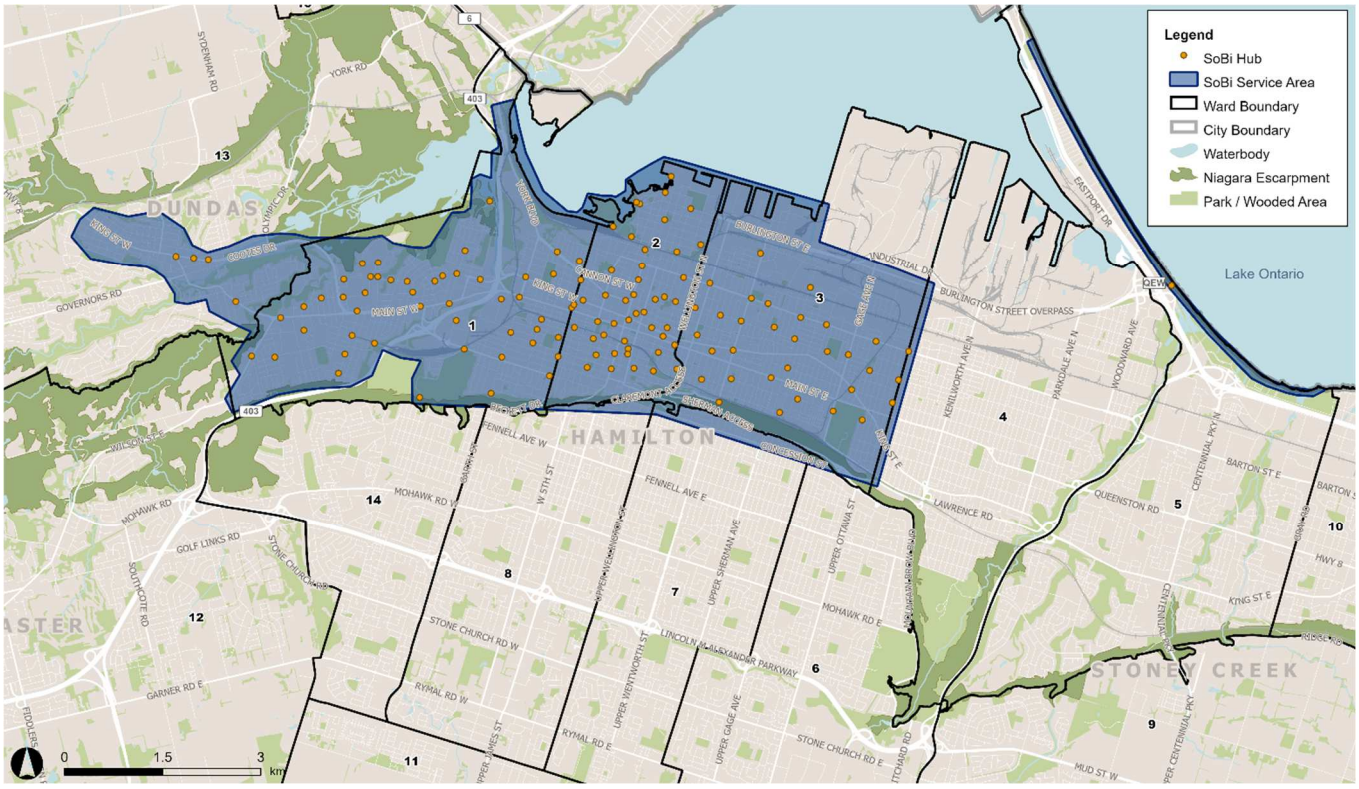
List of Exhibits

1 Introduction

Since 2015, Hamilton's bike share program has been an integral part of the way residents and visitors move around the city. It is the only public bike share in the Greater Toronto and Hamilton Area (GTHA) outside Toronto. As of early 2020 prior to the pandemic, some 5% of Hamiltonians, nearly 27,000 people, are active members and they make over 30,000 trips a month. The program has been awarded the Transportation Association of Canada's 2016 *Sustainable Urban Transportation Award* and the 2016 *Canada Clean 50 – Top 15 Project Award*. The Everyone Rides Initiative (ERI), run by the local not-for-profit Hamilton Bike Share Inc. (HBSI), is Canada's first bike share equity program and has been removing barriers to cycling in the city since 2015.

While the City of Hamilton owns the bicycles and stations, it has always contracted with others to operate the system. The bike share system was one of the first free floating, or "smart bike", systems in Canada. It now totals 825 bikes spread across 35 km^2 of Wards 1, 2, and 3 as shown in Exhibit 1.1. It was procured based on a Design-Build-Operate-Maintain Request for Proposals (RFP) process for an exclusive operator. The City purchased the bikes, but the system was to be self-sustaining, with no further operating funding support from the City.

Exhibit 1.1: Map Showing Hamilton Bike Share Service Area

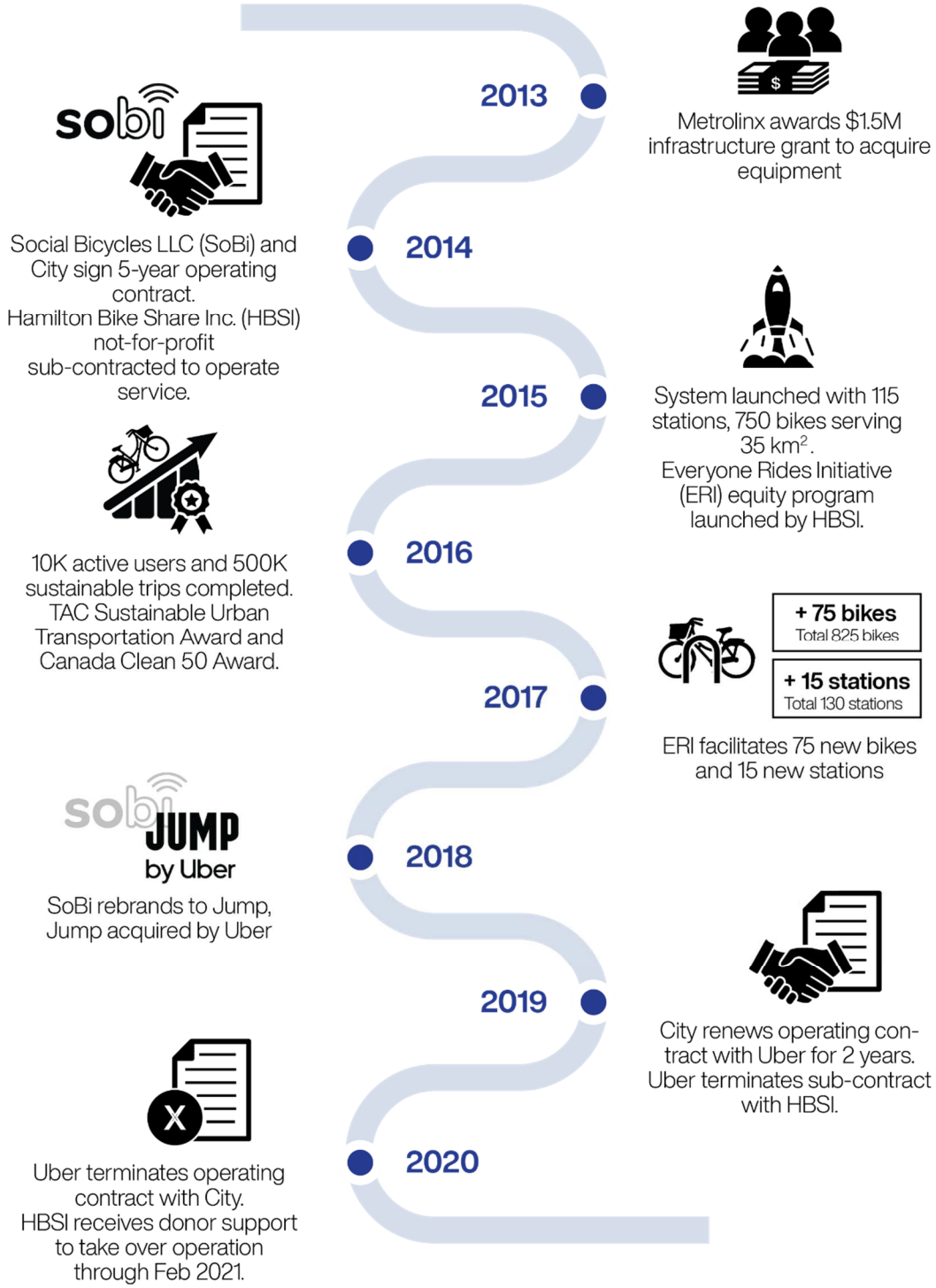


Between 2015 and 2019, the system had been operated by HBSI under sub-contract to Social Bicycles since launch. Uber acquired the operation in 2018 and brought all services in-house a year later after terminating HBSI's sub-contract.

Uber's decision to cease operating the system as of June 2020, well ahead of the contracted February 2021 end date, the lack of penalties for breaking that contract, and the lack of dedicated sources for operating funds together put the system in a precarious state. HBSI has

filled the role of interim operator while donations from a wide range of sources has filled the funding gap until February next year. Beyond that, the path forward for public shared micro-mobility in Hamilton is unclear. Exhibit 1.2 illustrates the milestones in the systems history.

Exhibit 1.2: Timeline of Major Milestones in Hamilton Bike Share



1.1 Study Objectives

This study is intended to identify the most suitable way to provide sustainable shared micro-mobility in Hamilton given the local context. Specifically, the objectives of the study are to:

- Define a preferred operating model, which is intended to be flexible enough to adapt to multiple vehicle technologies (e.g. e-scooters, conventional bikes, and e-bikes) while being financially and operationally sustainable for a five-year period;
- Define the role of not-for-profit organizations like HBSI in the preferred structure;
- Estimate potential costs and benefits, focusing on non-tax base revenue sources and including economic benefits such as reduction in vehicle-kilometres travelled, greenhouse gas emissions, and improvements in community wellbeing; and
- Develop a strategy for expanding the service to new neighbourhoods over time.

The findings generated in this study will inform the City's next steps in setting up an organizational structure and procuring trusted partners to continue delivering high-quality shared micro-mobility to residents well beyond the end of the current contract in February 2021.

2 Peer Review

A peer review was undertaken to better understand operations and practices of other micro-mobility systems. The peer review provides a deeper understanding of the following:

- Organizational structures that could work best for a mid-sized city like Hamilton;
- How permit-based systems work, particularly when run alongside city-run systems;
- Operational funding arrangements that have been sustainable, including where sponsorships work best;
- How to ensure operators remain for the duration of their contracts;
- How best to plan for and delivery service area expansions; and
- The level of municipal staff oversight required.

The peer review was undertaken through desktop research with conference calls held with selected jurisdictions to help augment the overall understanding. Hamilton's approach to micro-mobility will attempt to build upon the lessons learned in other jurisdictions, as well as its own experience with SoBi.

2.1 Overview of Peer Systems

Nine cities were identified for the initial review. These were: Toronto, Vancouver, Kelowna, Calgary, Seattle, Washington (DC), Portland, Minneapolis, and Philadelphia. Of these, follow-up interviews were conducted with representatives from Philadelphia, Washington, Toronto, and Kelowna. A summary of the systems and important features are outlined below.

- **Toronto:** Bike Share Toronto is Canada's second largest bicycle sharing program (following Montreal's BIXI system). The service is a dock-based bike share. When the current season's expansion is completed, the system will have 625 stations, more than 11,000 docking points, and more than 6,500 bicycles. Program management is awarded via the RFP process. The most recent award was a 5-year term for a single for-profit operator.
- **Vancouver:** Mobi by Shaw Go is a dock-based bike share system in Vancouver. It is differentiated from other dock-based systems by allowing riders to lock the bikes anywhere to make a stopover and holds the distinction of being the only bike share in Canada requiring and providing helmets for all riders. Operations are contracted out to a for profit operator.
- **Kelowna:** Micro-mobility in Kelowna is based on a permit system that allows multiple private sector firms to apply to deploy their own vehicles subject to the terms of the permit. As of August 2020, the system permitted e-scooters, e-bicycles, and e-mopeds. Issuance of a permit, however, does not necessarily mean that the vehicles are available. E-scooters are the most abundant type of shared micro-mobility, despite only being legally allowed to operate on a few off-road corridors. The program is partly funded by the City's broader sustainable mobility program, which aims to promote active transportation and other non-driving modes.
- **Calgary:** Calgary has initiated pilot programs for both dockless bicycles and e-scooters through a permit system. In March 2020, however, bikes were pulled from the streets by the private operator, leaving e-scooters as the only shared mobility available. Up to 2,500 e-scooters have been permitted between three companies.

- **Seattle:** Shared micro-mobility in Seattle is a permit-based system with bicycles and e-bicycles available as of August 2020. An e-scooter share is expected to launch in the coming months. Seattle was the first city in the United States to pilot a free-floating bike share.
- **Washington, DC:** Capital Bikeshare expands across the Metro DC area providing a hybrid dock-based bike share service. Bikes can be locked outside of docks for a fee. This program is administered by the District Department of Transportation and operations are contracted to a single private operator through an RFP process. The DC area also has several private companies allowed to provide dockless bicycles and e-scooters, which operate independently of Capital Bikeshare through a permit program also administered by the District Department of Transportation.
- **Portland:** BIKETOWN is a hybrid system that is transitioning to an all e-bicycle fleet during the summer of 2020. The original launch in 2016 was funded with a $2M grant from the federal government and a $10M title sponsorship. The title sponsorship was renewed in 2020 for 5 more years at $8M. No general city funds are used to operate the system. There is also an ongoing pilot e-scooter program in which five private operators are participating through a permit program run by the Portland Bureau of Transportation.
- **Minneapolis:** The Nice Ride program includes bicycles, e-bicycles and e-scooters, integrated under a single non-profit administrator that outsources operations to the for-profit firm Motivate. The system began with a docked bicycle system but is transitioning to a dockless system. The system is the only one that was reviewed to have e-scooters integrated into the typical public bike share structure (owing to Lyft's ownership of Motivate). Despite the cross-branding, e-scooters and shared bicycles have different fee structures. Bird e-scooters are also allowed, but not integrated into the Nice Ride system. Funding largely comes from user fees and title sponsorship.
- **Philadelphia:** Indego is a docked bike share system administered by the City's Office of Transportation, Infrastructure, and Sustainability with operations outsourced to a single private operator via RFP. Non-profit groups are heavily involved in system planning, outreach, marketing, and equity programming alongside City staff. The program is largely funded by user fees and a title sponsor (Independence Blue Cross).

Key operating statistics for the peer-reviewed systems are outlined in Exhibit 2.1.

Exhibit 2.1 :Key Statistics for Peer Systems

	Pop. Density	Type of Micro-mobility	Micro-mobility Statistics	User Fees	Farebox Recovery	Operating Expenses
Hamilton (Population: 536,917)	480.6 /km^2	Bicycles (hybrid system)	825 bikes, 130+ hubs	Pay as you go, monthly and 6-month plans	29% (2020 estimate)	$52 per dock per month, $88 per bike per month
Toronto (Population: 2,731,571)	4,334.4 /km^2	Bicycles (station-based system)	6,850 bikes, 625 stations (by end of 2020)	Annual, 3-day, day, single trip passes	50% (2017)	$2.58 per trip[1]
Vancouver (Population: 631,486)	5,492.6 /km^2	Bicycles (station-based system)	~2,000 bikes, ~200 stations	Day, monthly, annual passes	Unknown	Unknown

	Pop. Density	Type of Micro-mobility	Micro-mobility Statistics	User Fees	Farebox Recovery	Operating Expenses
Calgary (Population: 1,239,220)	1,501.1 /km^2	E-scooters	~2,500 scooters	Varies by operator	n/a	None
Kelowna (Population: 142,146)	601.3 /km^2	E-scooters, e-bikes e-mopeds,	~700 scooters, 50 e-bikes, 25 e-mopeds (permitted)	Varies by operator	n/a	None
Philadelphia (Population: 1,584,064)	4,554.8 /km^2	Bicycles (station-based system)	~1000 bikes, ~136 stations	Day, monthly, annual passes	~41% (2017 forecasted)	$284/bike per month[2], $155 per dock per month
Minneapolis (Population: 429,606)	3,071.7 /km^2	Bicycles (docked and dockless), e-bicycles, e-scooters	~1,350 bikes, ~160 stations – system is transitioning to dockless or hybrid system	Single ride, day, 30-day, annual passes, e-bicycle and e-scooter are pay as you go	Unknown	$50 per dock per month, $98 per bike per month
Washington (Metro Area) (Population: 6,216,589)	418.7 /km^2	Bicycles (hybrid), e-bicycles (hybrid), bicycles (dockless), e-scooters	Capital Bikeshare: ~5,000 bikes, ~900 e-bikes, ~600 stations, Private: ~1,900 e-scooters, ~90 dockless bikes.	Single trip, day, 3-day, 30-day and annual passes; $1 extra to unlock an e-bike	~90% in DC, ~52% in Arlington	$2.55 per trip[1], $101 per dock per month, $207 per bike per month
Portland (Population: 654,741)	1,894.7 /km^2	E-bicycles (hybrid), e-scooters	1,500 e-bicycles (in process of relaunching, will remove 1,000 standard bicycles), up to 1,250 e-scooters allowed per permit issued, 5 permit holders	Pay as you go, monthly and annual passes; prices vary by operator for e-scooters	Unknown	Unknown. No operating costs paid by City.
Seattle (Population: 753,675)	3,464.6 /km^2	Bicycles (dockless), e-scooters (pilot to be launched in 2020)	7,000 bikes (as of May 2019) with plans to expand to 10,000.	Varies by operator	n/a	None

[1] ITDP Bike Share Planning Guide

[2] Indego 2018 Business Plan Update

2.2 Organizational Characteristics

2.2.1 Organizational Structure

The peer systems can be classified into three broad organizational structures:

- Publicly-owned and administered systems with a single contracted private company operating the system, e.g. Toronto, Vancouver, Philadelphia;
- Permit-based systems, with multiple private companies operating their own devices, subject to terms defined in the permit, e.g. Kelowna, Calgary, Seattle; and
- A combination of the above, e.g. Washington, Portland, Minneapolis.

All micro-mobility systems have some level of oversight at either the municipal level or through a designated non-profit (e.g. Minneapolis and to some extent Philadelphia). This requires a small complement of municipal staff overseeing the contracted operations, typically 0.3 – 1 Full Time Equivalent (FTE), and resources to enforce permit conditions.

In public (usually dock-based) systems, it is typical for the municipality or an arm's length agency to own physical assets. For permit-based systems, physical assets are owned by individual operators. In Washington, DC, where public and private systems are both available, officials noted that the launch of the private e-scooters and bicycles initially decreased ridership for the public system. However, the overall number of trips taken by micro-mobility increased, which was an important objective for the region.

The three peer cities that do not have a permitting system are in jurisdictions that prohibit shared e-scooters[1], suggesting that permitting systems are a common approach to blending city-run and entirely private-sector run micro-mobility. With Ontario's January 2020 e-scooter Pilot, Toronto Council has started discussion on whether e-scooters should be allowed and under what model. In most cases, cities that did not have existing bike share systems before dockless technology arrived were the ones that opted for a permit-only arrangement. Washington DC, Portland, and Minneapolis more closely reflect Hamilton's situation of already having micro-mobility assets deployed and in good working order where higher levels of government also allow e-scooters.

Two of the cities reviewed had recently changed their operating models. With the expiry of the initial vendor contract, Philadelphia took the opportunity to issue an RFP with an updated contract structure. The city sought to shift some risk and cost to the operator by changing to a concession model that set fixed per-dock payments with set service-level targets. They also sought to leverage private investment to help with system expansion by entering into a 10-year agreement, which allows the time for the operator to recover initial capital investments in assets required for expansion.

In Minneapolis, Nice Ride had previously been both owned and operated by a non-profit organization. Under a business structure updated in 2018, operations were outsourced to a for-profit company, which absorbed previous non-profit staff while the non-profit retained its oversight role. This transition was a direct response to the rise in for-profit companies with the capital, technology, and processes in place to deliver a wider range and larger number of micro-mobility devices than could be achieved with only local resources. However, the non-profit uses its oversight role to ensure transparency and innovation, order, equity, robust data sharing, and prioritization of quality and reliability over growth.

A contracted operator running the City's bike share assets alongside permitted dockless operators is a common arrangement in peer cities that already own bike share assets like Hamilton.

2.2.2 Operator Retention

Peer cities that own micro-mobility assents tend to have operator contracts with clear clauses covering data sharing, penalties for early termination, fixed periodic payments by the city, and allowances to allow for service area expansion during the term of the contract. No unusual or

[1] Kelowna only allows e-scooters on off-road paths to comply with British Columbia's laws regarding e-scooters on public streets.

unexpected operator retention techniques were found—in fact, Hamilton's contract with Uber that did not include early termination penalties, data sharing, etc. was unusual compared to the peer cities.

Cities with permitted operators tend not to have any operator retention rules or penalties for an operator leaving unexpectedly. Many cities require operators to set aside a fund to cover the costs of removing vehicles from the street if the operator ceases operations, but this is not structured to penalize early departure. It is simply meant to ensure that the city is not left to cover unexpected clean-up costs.

2.2.3 Equity Considerations

Regardless of the organizational structure, most of the cities reviewed had some sort of equity consideration built into the shared micro-mobility program. These took the shape of one or more of the following:

- Discounts/special passes for low income individuals, e.g. Vancouver, Philadelphia, Washington, Minneapolis, Portland, Seattle. Qualifying criteria and size of the discount varied among cities;
- Alternative payment arrangements intended to improve accessibility for those without a credit card and/or a smartphone, e.g. Vancouver, Portland, Minneapolis;
- Service requirements built into operator contracts or permit systems that aim to increase access within lower income or priority neighbourhoods, typically implemented through a provision that a certain number or percentage of devices be located within identified areas, e.g. Minneapolis, Portland, Seattle; and
- Targeted expansion to lower income or equity areas for docked/publicly-administered shared mobility systems, e.g. Washington

Calgary's bike and e-scooter permit application asked for applicants to submit low income pricing scheme proposals and alternative to credit card and/or smartphone access proposals, however it is unclear if these have been implemented.

Toronto's bike share does not offer any sort of discounted pass or stated equity considerations. Kelowna's permit-based system does not include any equity considerations, but it was noted that devices were most likely to be deployed in the city's lower income areas due to the built form and other geographic considerations.

Hamilton's ERI program run by HBSI should apply to all shared micro-mobility, including permitted operator systems if those are allowed in the city.

2.2.4 Role of a Non-Profit Organization

Minneapolis stands out among the peers for the prominent role of its non-profit. Nice Ride Minnesota (NRM) has been the operator since launch in 2010 and since 2018 has been the manager of the contracted operator. It also oversees all equity programs and guides service expansion. That program is funded through user fees, title sponsorship, and grants provided by state and federal government programs.

In Philadelphia, the non-profit Better Bike Share Partnership takes on a more advisory role in addition to running equity programs and community outreach. For example, the non-profit helps guide service expansion to ensure disadvantaged communities are not left out and provides input to the City on operational considerations that may improve access to residents. They do not directly operate any part of the system. Funding is provided by private donations.

These experiences show that cities that already have an established non-profit with the skills and resources to run shared micro-mobility can provide effective service while meeting community engagement and equity goals. Non-profits can also be flexible in sub-contracting operators to supplement their skills and gain access to better technology and processes.

Hamilton should continue to leverage the experience of its local non-profit HBSI in an operating capacity but remain open to HBSI partnering with for-profit operators to bring technological improvements.

2.3 Funding Sources

Funding sources vary, and Hamilton will likely need to craft its own approach to funding, particularly in identifying suitable non-tax-based government sources for operating funds. This section briefly describes sources found in the peer systems as a guide for Hamilton.

2.3.1 Operating Funds

In permit-based micro-mobility systems, revenues were general generated through the permitting process. Fee structures vary from flat annual license fees to variable charges based on trips and/or fleet size.

In public systems, operating revenues typically come from user fees, sponsorship, advertising and/or grants. User fees are typically a large portion of total system revenue. However, user fees do not recover the costs of running the system. To make up this shortfall, bike share systems typically pursue alternative revenue streams. These are:

- **Title sponsorship:** The peer review found that title sponsors have been easier to find and retain for American systems than Canadian. For example, Biketown in Portland is sponsored by Nike, which is based that city. In Philadelphia, the health insurer Independence Blue Cross contributes USD$2 million annually, and staff noted that health care providers and insurers are typically eager to participate. Minneapolis also receives significant funding from its sponsor, Blue Cross Blueshield Minnesota. The structure of healthcare in the US provides potentially broader scope for private for-profit companies to sponsor micro-mobility if it aligns with their own public health goals and marketing/PR programs.

  In Toronto, TD Bank provided title sponsorship at a rate of CAD$750,000 annually but opted not to renew the contract after 2016. Despite an ongoing search, Bike Share Toronto has not been able to secure a title sponsor since. Vancouver, however, was able to secure a multi-year title sponsorship agreement with Shaw Communications (value was not disclosed).

- **Advertising:** Separate from a title sponsor, there is potential to place advertisements on physical assets, typically kiosks and stations. This revenue source tends to be relatively small. The North American Bikeshare Association 2016 Benchmarking Survey found that advertising amounted to just 2% of system revenue across 18 systems surveyed. Indego in Philadelphia assumed just $200 per month per station in advertising revenue in their business planning exercise.

- **Grants:** Additional revenue from private or public grants that are used on operating costs. Philadelphia's Indego receives 2% of operating revenues from private grants. The North American Bikeshare Association 2016 Benchmarking Survey found that grants amounted to 20% of system revenue across 18 systems surveyed. It should be noted that grants may not be consistent sources of funding.

- **Government Funding:** It is rare for shared micro-mobility to receive significant direct municipal funding from general tax revenues. Toronto receives some annual funding from city Council through non-tax-based sources such as the Public Realm Reserve. Philadelphia's Indego and Capital Bikeshare in Metro DC also receive occasional government funding from various funds dedicated to climate change, sustainable transportation, innovation, and similar initiatives but these tend not to be consistent sources year-to-year.

2.3.2 Capital Funds

Capital funding is typically paid for through government or private grants and other sources of government funding. For example, in Toronto, capital expansion has been funded through various governmental grants, plus contributions from Ontario Planning Act Section 37 and Section 45 reserves when matching is required. Additional capital funding for Toronto comes from the City's Public Realm Reserve and the Toronto Parking Authority Capital Reserve.

Sponsorship should be sought for Hamilton, but the City should be conservative in estimating how much funding could be obtained this way. Ongoing operating funding sources are city-specific, and Hamilton should develop its own potential sources based on the local context.

2.4 Expansion Approaches

Peer cities with contracted operations tend to focus on providing good coverage of micro-mobility vehicles throughout the city rather than focusing only on profitable neighbourhoods. However, they also include cycling propensity analysis or similar technique to judge whether residents of a neighbourhood are likely to use micro-mobility if it was deployed there, so the goal is not simply to distribute bikes and scooters everywhere in a city.

Toronto's most recent expansion, for example, extends further north outside the dense downtown core but in lower density suburban neighbourhoods in North York and Scarborough, staff have chosen to pilot smaller deployments of bikes to gauge response before investing heavily in suburban expansion.

Philadelphia and Toronto's contracts with their operators both allow for service expansion. Payment is per dock, so the operators will see a revenue increase if the service grows. Both cities also made their expansion plans clear during procurement, so the vendor had a chance to agree to the terms. In Portland and Philadelphia, the operator and sponsors are also directly investing in service improvements either by procuring more bikes or upgrading to e-bikes.

Funding for capital expansion is typically through government or donor grants, except in cases like Portland and Philadelphia where the operator sees a vested interest in paying for expansion.

Permit-based systems like Kelowna and Calgary are much more reliant on the operator's own initiative to expand. Some US cities like Los Angeles incentivize permit-based system expansion through reduced permit fees, while others allow fleet size increases if the operators reach certain vehicle distribution targets.

A robust data-driven approach to prioritizing expansion areas should be pursued, keeping in mind equity considerations and the desire to bring micro-mobility to all residents. Contracted operators should be paid either per vehicle or per dock to align their revenue expectations with expansion goals.

3 Assessment of Micro-mobility Operating Models

In the five years since Hamilton's bike share system launched, micro-mobility has grown to not only include bike sharing, but also scooter sharing and e-bike sharing. This growing micro-mobility industry has seen an influx of venture capital (VC)-backed companies with new service delivery models. Lime, Spin, and Bird, among others, launched self-funded micro-mobility programs that require no financial or operational input from cities, for better and worse. Uber and Lyft also acquired micro-mobility companies and integrated them into ride hailing platforms to become multi-modal operators.

Now that the Ministry of Transportation Ontario (MTO) has approved a 5-year pilot program for e-scooters, letting municipalities determine where they can operate through bylaws and permits, the micro-mobility market in cities like Hamilton has become potentially more attractive.

A key decision for the City of Hamilton's future shared mobility program will be to determine which operating and funding model is appropriate. The models largely fall into four groups:

- Exclusive for-profit operator contracted to the City;
- Exclusive non-profit operator contracted to the City;
- Non-exclusive permit-based for-profit operators; and
- Mix of non-exclusive permit-based for-profit operators and a contracted operator.

The **Mix of Non-Exclusive Permit-Based For-Profit Operators and Contracted Operator** is the preferred operating model utilizing a variety of funding sources to diversify and build support for micro-mobility and ensure for-profit operators are attracted to Hamilton.

This chapter describes the models, describes the factors used to assess the models, and recommends a preferred model for Hamilton.

3.1 Regulatory and Contractual Considerations

In this context, exclusive operator contracts are assumed to include penalties for early termination, fixed terms and options to renew, and a fixed periodic payment per vehicle, per dock, or per station to the operator. The operator is viewed as a paid service provider, giving municipal staff some control over key decisions such as expansion and level of service.

Unlike the exclusive contract arrangement, permitted operators typically pay the municipality for the right to operate on public property with fees usually set just high enough to cover expenses to the city in overseeing the program. Permits may also set aside funds to remove vehicles from public property if an operator leaves.

Regulations would need to be modified in two ways to allow non-exclusive models in Hamilton:

- A new bylaw to govern dockless e-scooter use on municipal streets would be needed given that most permit-based operators in the market use e-scooters; and
- A new permit or licence regime is needed to regulate the market.

Permits may include restrictions, penalties, and incentives to guide operations but since the operators would not be paid service providers to the city, municipal staff have limited control over decision-making and operators are usually free to leave without penalty.

Under the Ontario Municipal Act, the City of Hamilton can issue licences or permits. Licenses allow any qualified service provider that pays the appropriate fee to operate in the city, but they do not regulate how service is provided. Licences can be revoked for non-compliance with the terms and conditions, but staff would be limited in their ability to ensure orderly operations

without control over the number of operators, vehicles, or distribution. It is very uncommon for North American cities to issue micro-mobility licences.

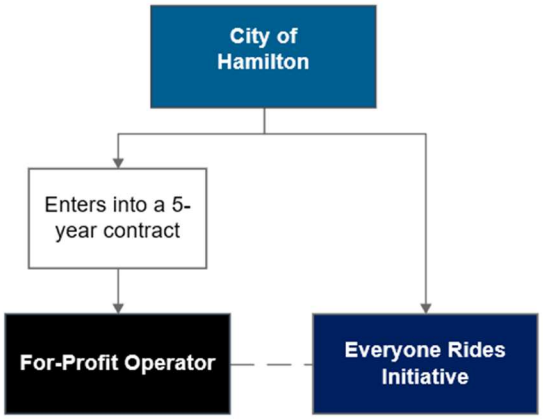
A permit allows municipalities to introduce regulations for services provided to the public and offers a way to articulate operating standards based on policy goals and limits on the number of operators, vehicles, and other characteristics. Permits can be revoked for non-compliance with terms and conditions. Most North American cities with non-exclusive micro-mobility services use permits. **This is the preferred option for Hamilton should it pursue a non-exclusive system.**

3.2 Operating Models Considered

3.2.1 Exclusive Contracted For-Profit Operator

Example Cities: Philadelphia, Toronto

Under this model, a new for-profit company enters into an exclusive agreement with the City of Hamilton to operate a micro-mobility service using the existing bikes and equipment, but with the opportunity to add to or upgrade that fleet over time. The ERI would be run independently either directly by City staff or under the current arrangement through Hamilton Bike Share Inc. (HBSI) and would be coordinated with the system operator.



Procurement would follow a standard RFP process and the city would pay the operator to provide the service (e.g. Toronto, Philadelphia, and Washington DC pay CAD$89, USD$125, and USD$99 monthly per dock respectively). Service expansion would be planned by the City and terms for operating the expanded service would be part of the contract. The City would be responsible for acquiring any new assets needed to serve an expanded service area, although in some cases operators have invested their own funds into expansion and upgrades (e.g. Lyft in Chicago, Portland, and Philadelphia).

A similar operating model was used from in Hamilton from the 2015 launch until Uber left in June 2020. The City of Hamilton contracted Social Bicycles LLC (later Jump then Uber) to manage operations on the City's behalf. However, that arrangement did not include payment to the operator, no data sharing agreement, and no penalty for early termination, which is an atypical arrangement in North America.

Stakeholder Consultation Comments

During this study's stakeholder consultation session on July 23rd, 2020, participants expressed that this model could bring VC funding and the experience of a large operator to the city, while transferring financial risk to the operator and providing a consistent user experience with potentially new vehicle types. However, they also cautioned that there may be less focus on social programming, less city control and lower incentives to improve service due to lack of competition. This arrangement is also vulnerable to a loss of VC funding and risk of revenues not being reinvested in Hamilton.

3.2.2 Exclusive Contracted Not-For-Profit Operator

Example Cities: Pittsburgh

This model would see a not-for-profit organization enter into an exclusive agreement with the City of Hamilton to operate a micro-mobility service using the city's bikes and stations. Hamilton Bike Share Inc. (HBSI) is the only not-for-profit that exists in Hamilton today with the skills, experience, and mandate to operate such a service. However, this does not preclude the City from pursuing an RFP and, at minimum, the City should pursue a Request for Expressions of Interest (RFEI) to ensure there are no other entities that could delivery high-quality service. This could take place immediately, or in two years after the renewal of the current contract ends. This would give City staff time to solidify funding sources and prepare both the RFEI and RFP—a process that typically takes at least a year.

Service expansion, capital funding, and operational funding would be the City's responsibility like the for-profit model on page 12 but administration of the ERI program would be with the operator.

The current interim operating model in Hamilton is similar to this arrangement. From July 2020 until February 2021 HBSI has an exclusive contract with the City to operate the service using existing bikes and equipment, but the contract does not include penalties, incentives, or financial support from the city.

Nice Ride Minnesota (NRM) is a not-for-profit that owns and operates the bike share in Minneapolis, MN under a 10-year exclusive agreement with the city effective in 2010. NRM's mission to pursue equity, reliability, and quality of service and its core belief that "bike sharing is a public good"[2] align with the city's broader transportation goals and ensure that the local community is deeply involved in decision making through their local not-for-profit. Operations are substantially funded through title sponsorship, which is common in the US but less so in Canada. NRM also receives capital funding from the Metropolitan Council, and state and federal grants. While NRM initially directly operated the service, it sub-contracted Motivate in 2018 while retaining its oversight role.

The NRM example shows that equity programs like Hamilton's ERI can be well integrated into this setup given a not-for-profit's intrinsic values, skill sets, and experience. In the case of Minneapolis, the City is also able to remove itself from virtually all operational decisions since NRM's mandate and values align with the City's direction.

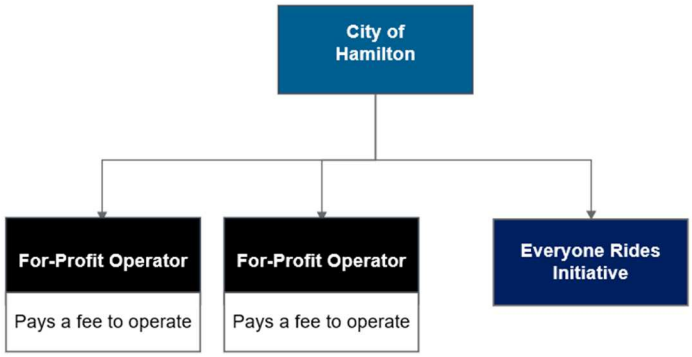
Stakeholder Consultation Comments

During this study's stakeholder consultation session on July 23rd, 2020, participants expressed that the benefits of a non-profit organization is that the organization is guided by a Board of Directors that is comprised of members of the community, provides a continuity of service, is committed to equity programming, and its revenues are invested back into the program. However, they noted that a variety of funding sources may be required to support the organization and it can be limited in the ability to introduce new technologies if there is not enough investment.

[2] Source: https://managesharedmobilitymn.org/

3.2.3 Non-Exclusive Permit-Based For-Profit Operators

Example Cities: Kelowna, Calgary, Edmonton



This model would see a permit process established to allow multiple for-profit companies (e.g. Spin, Lime) to operate micro-mobility services in Hamilton with their equipment. The City of Hamilton Licensing and Compliance Department has the staff and expertise to enforce the permits and Sustainable Mobility Staff in Transportation Planning have the expertise to operate the permit program. No RFP would be pursued in this case[3], which could simplify the process.

The city-owned bikes and stations would likely be retired under this model since for-profit permit-based operators tend to use their proprietary vehicle and app designs in competitive environments. There is no strong market for resale of public bike share equipment, so the City would need to pay to remove and safely dispose of or donate the equipment.

Funding and service expansion would be the responsibility of the operators, but the City would also relinquish most direct control over how services are delivered. This could result in frequent turnover of operators, no guarantees that operators would remain in the city, and no guarantees that operators would run service in the winter or operate bikes, which the City already owns. Many cities with permit-only regimes have faced these challenges.

The terms of the permits would set some service parameters like acceptable fleet sizes and incentives to expand (e.g. the right to expand fleet or discounted permit fee once targets are met). Funding to oversee the program would come from permit fees paid by the operators. Permit fees could be up to $75,000 per year either as a flat fee, per-device fee, per-trip fee, or a combination. Per-vehicle performance bonds and fees to relocate improperly parked vehicles are also common.

In this operating model, the Everyone Rides Initiative would be managed independently either by the City or through HBSI but coordinated with the multiple for-profit operators who would be required to contribute to the program's funding.

Stakeholder Consultation Comments

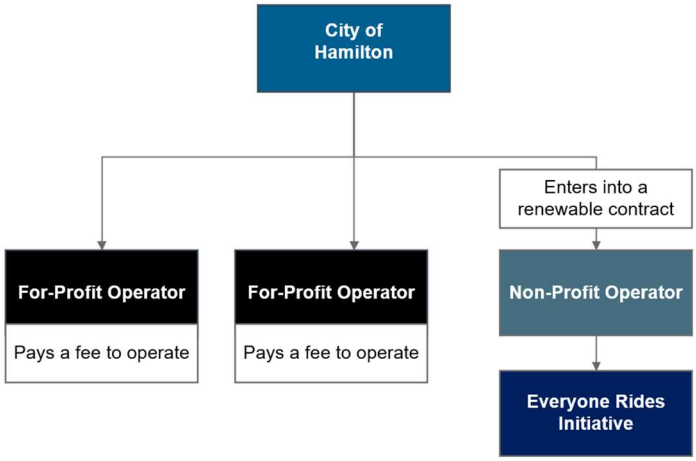
During this study's stakeholder consultation session on July 23rd, 2020, participants expressed that the City could use performance bonds to ensure service standards, expand faster with cheaper dockless technology, and competition in the market could drive innovation, increase service levels and lower prices for users. However, they noted that for-profit operators may choose to focus on profitable areas creating an inequitable service, users would have an inconsistent experience with multiple memberships, apps, etc., there may be overcrowding in the pubic right-of-way, and there less of a guarantee that the system will continue to operate as a transit service or continue to operate at all.

[3] Interviews with Toronto and Philadelphia city staff who recently completed RFPs for their bike share systems highlighted that there is very little market interest in bidding on non-exclusive operating contracts.

3.2.4 Mix of Non-Exclusive Permit-Based For-Profit Operators and a Contracted Operator

Example Cities: Minneapolis, Memphis, Washington DC, Portland

This model is common in US cities that, like Hamilton, had successful bike share systems before venture capital funded micro-mobility companies arrived, but where authorities also see benefits in having alternative technologies and business models to provide more choices. Washington DC's city-run Capital Bikeshare, for example, operates alongside up to 10,000 e-scooters run by four operators.



In Hamilton's case, an effective arrangement would draw on HBSI's skills, experience, and mandate as a contracted operator as described on page 13, potentially with some measure of exclusivity (e.g. only the contracted operator can use bikes), alongside a permit system that allows multiple for-profit companies to operate as described on page 14. This arrangement works well for NRM in Minneapolis where the bike share operates alongside Bird and Lyft e-scooters.

The existing equipment owned by the City would be operated by the not-for-profit organization and the City would provide capital and operating funding to the contracted operator. The not-for-profit organization would also run the ERI and coordinate with the for-profit operators as needed to administer that program. The for-profit permit-based operators would receive no funding from the City but would need to pay applicable permit fees to operate.

In this model, the for-profit operators could also pay an equity fee to the non-profit contracted operator in order to ensure equity programs are sustainable and ensure a broad range of residents from different incomes and backgrounds continue to have access to affordable and healthy modes of transportation. The equity fee provision also offsets the risk of for-profit operators shutting down their services.

Stakeholder Consultation Comments

During this study's stakeholder consultation session on July 23rd, 2020, participants expressed that having competition between operators could lead to lower prices and better services and this model maintains the existing infrastructure through a contracted operator. There is potential to collaborate between operators to retain an equity and community focus, if the contractor is a non-profit then revenues would be invested back into the service, and this model brings local and international operating experience together. However, they noted that this model bears the risk of the non-profit operator having to compete with for-profit companies, requires a variety of funding sources to support the non-profit operator, and may create additional overhead for the City to manage additional operators.

3.3 Assessment and Recommendation for Preferred Operating Model

Three themes with a total of 10 factors were developed in consultation with Hamilton staff to guide the assessment of the four operating models:

- **Risks to the City and Program** – Financial risk, the likelihood of losing operators, and similar challenges vary depending on the operating model selected.

  While liability risk is a consideration, the level of risk does not differentiate the different models, so it was excluded here. Based on advice from the City's Legal Services and Risk Management team who assessed the current bike share system[4], the City's risk of liability for tertiary claims arising from cyclist injury due to malfunctioning bike or injury on a municipal road due to infrastructure issues in using a third-party operator is similar or less than the risk of other city-owned infrastructure. Risk mitigation would require operators to have at least $5 million in liability insurance and would be specified in the contract and/or permit terms.

- **Supports City Goals for High and Consistent Quality of Service and Community Involvement** – The City places high value on equity, quality of services, and community engagement, which should all be reflected in the model.

- **Ease of Administration** – Models that require less overhead from Hamilton staff and can leverage existing local knowledge and resources are valued higher.

In the Assessment of Operating Models and Funding Sources Technical Memorandum in (Section 1.3), 10 factors that fall into these themes are described. Exhibit 3.1 shows the results of assessing the four models against these 10 factors. The results of a SWOT analysis evaluating the four operating models is also located in (Section 1.3.1).

[4] Liability risk assessment was documented in the Hamilton Staff Report to Council PW13015.

Exhibit 3.1: Assessment of Potential Operating Models

Factor	Operating Model			
	Contracted For-Profit	Contracted Not-For-Profit	Non-Exclusive Permitted For-Profits	Mix of Permitted and Contracted
Risks to City and Program				
Failure due to loss of operator	▲ Low risk due to service-provider contract with penalties for early termination.	▲ Low risk due to service-provider contract with penalties for early termination.	▼ High risk as permits do not oblige operators to stay and City would have no alternatives if they leave.	▲ Low risk due to service-provider contract with at least one operator with penalties for early termination.
Inability to secure an operator	▲ Low risk. Several for-profit contractors already operate with this model in Toronto, Washington DC, Portland.	▬ Medium risk. Only one local operator and there is less guarantee less guarantee that they have a sustainable funding if operational costs are not covered by City revenues or grants.	▬ Medium risk. Ottawa is the only Ontario city to pilot this model, although the largest micro-mobility companies have expressed interest in Hamilton.	▲ Low risk. Blended approach gives City more options to ensure that an operator can be secured.
Financial risk to the program	▲ Low risk. City would arrange funding through non-tax based sources and sponsorship.	▲ Low risk. City would arrange funding through non-tax based sources and sponsorship. Not-for-profit may also be eligible for grants.	▼ High risk. It is common for operators to leave cities after a one or two years to find more profitable areas.	▲ Low risk. Blended approach combines City funding with potential VC-backed operators.
Supports City Goals for High and Consistent Quality of Service and Community Involvement				
Supports a consistent user experience throughout the City	▲ Most consistent since a single operator works toward specific contract terms.	▲ Most consistent since a single operator works toward specific contract terms.	▼ Little consistency is ensured since operators set their own standards within broad guidelines.	▬ Contracted operator sets a standard/example for permitted operators but consistency still varies.
Allows greater direct City influence on decision-making regarding operations and service expansion.	▲ City has high influence as the client in a service-provider relationship with operator.	▲ City has high influence as the client in a service-provider relationship with operator.	▼ City has some influence through permit terms but little direct control.	▲ City has high influence as the client in a service-provider relationship with operator.

Factor	Operating Model			
	Contracted For-Profit	**Contracted Not-For-Profit**	**Non-Exclusive Permitted For-Profits**	**Mix of Permitted and Contracted**
Supports City's 2016 – 2025 Strategic Plan Priority of "Community Engagement and Participation"	▬ Some engagement as City could require community participation in planning/running the service through contract.	▲ High engagement and participation possible since not-for-profit is run by members of the community.	▼ Low engagement and participation as operators typically only accountable to private sector interests.	▲ Potentially high engagement and participation if a local not-for-profit run by members of the community is the contracted operator.
Encourages regular technology and process improvements that increase efficiency and/or quality of service	▬ Large for-profits could bring cost-saving improvements from other cities but fixed contract may lower incentive to do so.	▼ May be less able to invest in improvements that have high up-front costs.	▲ Highly motivated in a competitive environment to use the most efficient technologies and processes.	▲ Competitive environment could drive improvement. A contracted not-for-profit may not be able to invest to keep pace.
Ease of System Administration				
Supports re-use of local institutional knowledge developed over 5-years of SoBi Hamilton	▼ Unlikely that any for-profit operator with local expertise would be secured.	▲ HBSI has operated the current system since launch and has the most institutional knowledge.	▼ Unlikely that any for-profit operator with local expertise would be included.	▲ Could leverage HBSI's institutional knowledge through direct contract.
Level of city staff involvement required to manage program	▲ Low. Experience in other cities suggests less than 1 FTE to manage contract.	▲ Low. Experience in other cities suggests less than 1 FTE to manage contract.	▲ Low as City is not a manager, but enforcement of permit rules required.	▬ Existing staffing levels would be required to manage both the contractor and the permitted operators.
Ease of integration with other modes of transportation to support a potential future Mobility as a Service platform	▲ Easy integration as only one operator is involved, and contract can require integration.	▬ Only one operator is involved. Not-for-profit may be less able to invest in technology upgrades to integrate.	▼ Difficult as many operators may need to be integrated and City provides no funding for integration.	▬ Contract can require integration. Permitted operators may be harder to integrate.

3.4 Preferred Operating Model for Hamilton

On balance, the **Mix of Non-Exclusive Permit-Based For-Profit Operators and Contracted Operator** model is preferred for a mid-sized city with an existing bike share system and equity program like Hamilton. To continue the operation of one of the most successful micro-mobility equity programs in North America and to provide a continuity of service as the permit process is created, it is preferred to extend the existing operations contract with HBSI through the two-year contract extension mechanism built into the existing contract. This option staggers the City's risk and workload, allowing it to develop a robust permit program now and work with HBSI over the next 2 years to determine the next steps for a procurement in 2023.

It should also be noted that HBSI exists for the sole purpose of operating bike share and over the 2-year analysis period, the City has options to sell the entire system to HBSI or merge HBSI as an agency of the City similar to other entities like a parking or conservation authority, a trust or an independent body with Council representation on its board. Contracting HBSI allows the City to leverage skills and experience of a competent local operator that is dedicated to operating equitable micro-mobility in Hamilton and is familiar with the needs of the residents. Should the City of Hamilton extend HBSI existing contract, the contract should stipulate that HBSI share anonymous collected data on system performance and financial statements with the City of Hamilton.

There is a risk that the permit-based operators require high levels of enforcement to maintain order on public rights of way, but also has the added burden of overseeing two parallel micro-mobility programs. Calgary, Edmonton, and Ottawa, having already launched permit-based programs, will be able to offer specific guidance to Hamilton on how best to structure a permit program to minimize these risks.

Since the preferred model requires municipal funding, the City will need to identify and secure suitable ongoing operational funds for the contracted portion of the model. Funding sources available to Hamilton are discussed in Chapter 5.

3.4.1 Contract/Permit Considerations

Under the preferred operating model, some key operating considerations should be included in both the direct contract and, to the extent possible, in the permits granted to permitted operators. These allow the City of Hamilton to ensure that operators are providing the necessary level of service*:*

- **Rebalancing requirements:** Rebalancing vehicles to ensure an adequate number of vehicles are available across the system. For example, Capital Bikeshare sets a service standard that no station may remain full or empty for more than 3 hours between 6 a.m. and midnight. Staff may fill or empty stations late at night in anticipation of rush hour demand. The rebalancing standards have a direct relationship to the cost of operations. A strict rebalancing standard would increase operations costs and vice versa.
- **Fleet Deployment:** At any given time, a percentage of the system's fleet will be out of service due to maintenance. Deployment standards determine what proportion of the fleet must be in active at any one time. Requirements may be reduced in the winter due to lower demand and fleet management strategies.
- **Inspection and Maintenance:** Agreements should stipulate how often vehicles and stations are inspected. Capital Bikeshare requires that vehicles are inspected and maintained at least every 30 days. Maintenance schedules may vary depending on the intensity of use in the program.

- **Customer Service Standards:** Contracts should stipulate quality of service standards including call centre wait times and customer service satisfaction ratings. Standards may stipulate that telephone operators are available in more than one language to if required by City of Hamilton standards.
- **Support for ERI:** Permitted operators should be required to offer a discounted option to support low income residents or accept payment media that ERI may provide directly to users. Permitted operators should also be required to support a defined number of ERI's outreach initiatives per year. They should also pay an equity fee to the ERI program to mitigate the increased costs of running an equity program that covers multiple operators, vehicle types, and service delivery approaches

4 Business Case for Shared Micro-Mobility

A business case analysis was conducted to assess the feasibility of public shared micro-mobility in Hamilton. The approach follows Metrolinx's April 2019 *Business Case Manual Volume 2: Guidance,* which is an accepted GTHA framework that is regularly used to assess other transportation initiatives in the region. It consists of four cases as follows:

Economic –The economic case answers the question "what is the investment's overall value to Hamilton society" using standard economic analysis factors and techniques tailored to the GTHA context.

Financial – The financial case answers the question "how much will the investment cost the City of Hamilton" using standard accounting and financial analysis principles within the GTHA context.

Strategic – The solution should advance the City's mission "To provide high quality cost conscious public services that contribute to a healthy, safe and prosperous community, in a sustainable manner." Specifically, it should align with the priorities of Community Engagement, Healthy & Safe Communities, Clean & Green, and support Built Environment & Infrastructure through supporting multimodal transportation.

Deliverability – This perspective considers the question "what is required to deliver and operate the investment", focusing on whether Hamilton has the resources and skills to implement the proposed solution.

The base case scenario for comparison is the "do nothing" option where the current bike share operation would end in February 2021 without a replacement and the equipment discarded. A five-year horizon is used, which is short by transportation investment standards, but aligns with typical contract durations for shared micro-mobility operations in North America.

The analysis also focuses on the contracted operation, recognizing that this is where the City will be making the most investment of both money and staff time. The permit-based part of the solution is self-funded with no net financial impact to the City and very low "deliverability" responsibilities to the City beyond setting up the permit program.

Present value of the net incremental financial costs over the five-year period compared to the base case amount to **$3.5M**, which includes $875,000 in fare revenues. The economic analysis shows a **benefit-cost ratio (BCR) of 1.22 and a net present value of $951,000**, plus some unmonetized Mobility, Equity and Road Safety benefits.

The rest of this chapter details the complete business case analysis.

4.1 Covid-19 Impact on Ridership

Statistics on the direct impact of the Covid-19 pandemic on bike share ridership in Hamilton were not available for this study. However, figures made public by Capital Bikeshare (Washington DC), NYC Citibike (New York City), and Santander Cycles (London UK) show that June 2020 ridership has rebounded to 61%, 89%, and 96% of June 2019 levels. Anecdotally,

media reports also suggest that cycling has seen a boom in many US and European cities during the pandemic[5] as businesses re-open but people continue to avoid crowded public transit.

For this analysis, it is therefore assumed that Hamilton's bike share ridership will rebound to at least 2019 levels by the end of 2020.

4.2 Economic Case

In the base case, the only cost to the City would be storage and disposal (through donations and/or recycling) of the existing assets when the contract ends in 2021. Media reports of confidential Council meetings held in May 2020 indicated that this could cost about $130,000[6].

4.2.1 Capital Costs

These costs are those associated with replacing bike parts and bikes that are damaged beyond repair or that have reached end of life, but do not include costs of expanding the existing service (see Chapter 6). To date, Hamilton has not replaced any of its bikes so 750 bikes in the fleet are over five years old[7]. The Institute for Transportation and Development Policy (ITDP) suggests in its 2018 *Bikeshare Planning Guide* that shared bikes typically have lifespans of three to five years. In its 2018 business plan, Philadelphia's Indego program estimated a maximum lifespan of 10 years with the bulk of replacements happening after seven years of operations.

In the Hamilton case, it is assumed that 15%, 50%, and 35% of the fleet will have to be replaced in years seven, eight, and nine of operations respectively at a cost of $2,000 per unit[8]. Obsolescence of the bikes' electronic components may be the main driver of bikes in Hamilton reaching end of life since they are "smart bikes".

Stations tend to have longer lifespans than bikes, particularly those in "smart bike" systems like Hamilton's where most of the technology is on the bike rather than the station. Washington DC's 2020 capital plan anticipates that only 10% of stations need to be replaced within 10 years while Philadelphia's capital plan projects that only 15% of stations would be replaced in that time (both systems use "smart hubs" rather than "smart bikes"). Furthermore, in 2020 all stations in Hamilton were refurbished and galvanized. Station replacement costs are therefore excluded from this forecast. Exhibit 4.1 shows the capital cost projection to maintain the current fleet of 825 bikes and shows a discounted present value of just under $1.5M.

Exhibit 4.1: Projected Capital Costs of System, 2021-2025

Year of Expenditure	2021	2022	2023	2024	2025	TOTAL
Bikes Acquired	0	113	375	274	38	**800**
Capital Cost (Real Dollars)	$0	$225,000	$750,000	$547,500	$75,000	**$1,597,500**
Discounted Present Value	$0	$210,000	$700,000	$511,000	$70,000	**$1,491,000**

Note: A discount rate of 3.5% annually is used, consistent with Metrolinx's business case guidance.

4.2.2 Operating Costs

Operating costs make up a greater share of the costs. In 2020, these include rebalancing, maintenance and repairs totalling $390,000; website and app development, insurance, facility

[5] The Economist. (May 31, 2020). How lockdown converted the world to cycling, and the speedbumps that lie ahead. (2020, May 31). Retrieved August 24, 2020, from https://www.economist.com/international/2020/05/31/how-lockdown-converted-the-world-to-cycling-and-the-speedbumps-that-lie-ahead
[6] Van Dongen, M. (May 28, 2020). Taxpayers face $130,000 bill to 'mothball' Hamilton's popular bike share. *The Hamilton Spectator*, Retrieved from https://www.thespec.com/
[7] Another 75 bikes were purchased in 2017 so a small subset of the fleet is only three years old.
[8] Costs pertain to conventional bikes. Recent 2020 estimates for e-bikes for Washington's Capital Bikeshare were CAD$3,200 each, plus additional operational costs.

leasing and utilities, and administration totalling $143,500; and, unique to “smart bikes”, bike connectivity fees which are paid per device totalling $111,000. Exhibit 4.2 shows the total 5-year costs and the discounted present value.

Exhibit 4.2: Projected Operating Costs of System, 2021-2025

Year of Expenditure	2021-2025 Costs
Maintenance, Rebalancing	$1,950,000
Insurance, Administration	$717,500
Bike Connectivity	$555,000
Total Operating Cost	$3,222,500
Discounted Present Value	$2,910,000

Note: A discount rate of 3.5% annually is used, consistent with Metrolinx’s business case guidance.

4.2.3 Benefits

For this analysis, the monetized benefits of shared micro-mobility are categorized as:

- **Auto operating cost savings** – the reduction in indirect costs of vehicle ownership such as depreciation and insurance;
- **GHG emissions reduction** – the reduction of carbon dioxide and other emissions;
- **Local air quality improvement** – the reduction of toxic gasses such as nitrous oxides, carbon monoxide, and fine particles;
- **Travel time savings** – the reduction in travel time, including time spent waiting (e.g. waiting at a transit stop);
- **Traffic congestion reduction** – a result of having fewer autos on the road; and
- **Cycling and walking health benefit** – the active nature of walking and cycling improves the health of users.

These benefits are monetized using the factors in Metrolinx’s Business Case Guidance, which allow direct conversion of VKT changes into dollar amounts.

In addition to these monetizable benefits for which the guidance provides conversion factors, the Economic Uplift and Recreational benefit and the Mobility, Equity, and Road Safety benefits of shared micro-mobility are more difficult to quantify and monetize. These are discussed further in the next sub-sections.

Economic Uplift and Recreational Benefit

Some communities have seen economic benefits to retail businesses of cycling infrastructure and programs operating close to those businesses. Recent studies of the Bloor Street Bikeway in Toronto[9] showed that cyclists spent more and visited nearby businesses more often after the bike way was installed and more cycling trips could be safely made.

While similar studies have yet to be done to quantify the economic uplift that cyclists bring to retail businesses in Hamilton, the observations in nearby Toronto suggest that there is some additional economic benefit to local Business Improvement Areas.

From a recreational perspective, a significant portion of Hamilton’s bike share ridership occurs on weekends indicating that thousands of trips a year are also made to enjoy the city’s parks, green spaces, attractions, and other non-work and non-school destinations. There is a benefit to

[9] City of Toronto. November, 2019. *Bikeways and Business on Bloor Street: Research Summary.*

residents of having a reliable, affordable way to enjoy the amenities of the city, which shows as an improvement in quality of life.

Economic uplift and recreational benefits are difficult to quantify and monetize. For this study, these are assumed to be worth 20% of the more easily quantified VKT-based benefits.

Mobility and Equity Benefit

Mobility, Equity, and Road Safety benefits are also difficult to quantify and monetize in this context but together they provide additional support for the case for shared micro-mobility.

There are some neighbourhoods in Hamilton where it may be difficult to provide cost-effective fixed-route transit to improve mobility of residents. In some cases, buses may not come frequently enough to satisfy residents desire to make short trips around the neighbourhood while in other cases, residents may simply live too far away from the route they want to take. For residents who do not have the choice to use a car, this challenge finding public mobility options is a potential equity concern as they may be excluded from some activities and opportunities that other Hamiltonians have access to.

Shared micro-mobility can help fill this gap by offering a reliable first and last mile connection to transit where the route residents want to take is beyond walking distance. It also provides a viable option for those residents who would have foregone the trip altogether given the mobility challenges they face. HBSI has also recently tested offering shared tricycles for those residents who find it difficult to ride a bicycle, further expanding equitable travel choices.

Road Safety Benefit

The Metrolinx guidance indicates that road safety benefits are generated as users switch from auto due to having fewer cars on the road. This finding is supported by a February 2020 report by the Organization for Economic Cooperation and Development's International Transport Forum (OECD-ITF) that noted "*a trip by car or by motorcycle in a dense urban area is more likely to result in a traffic fatality than a trip by micro-vehicle…*"[10]. In addition, the concept of "safety in numbers" based on observations that cities with high bike mode shares see fewer road deaths, suggests that shared micro-mobility in Hamilton could make streets safer.

However, Ontario's *Preliminary 2019 Road Safety Annual Report* shows that, on an absolute basis, the proportion of cyclist-involves crashes that result in major injury or death is over twice as high as the proportion of auto crashes that result major injury or death.

These findings indicate that it is still unclear how best to quantify the potential road safety impact of shifting people from driving to micro-mobility even though this benefit may exist.

Estimation of Modal Shift and Impact on VKT

Surveys of shared micro-mobility users in Hamilton[11], Montreal[12], Calgary[13], and Portland[14] show that the degree to which drivers, transit users, and people who ride their own bikes shift to shared micro-mobility varies. Most shared micro-mobility riders typically come from transit and walking modes, although 10-35% of riders come from the auto-driver mode.

[10] OECD-ITF. February 2020. *Safe Micro-mobility*. p20. Retrieved from https://www.itf-oecd.org/sites/default/files/docs/safe-micro-mobility_1.pdf
[11] Civicplan. 2018. *SoBi Hamilton Member Survey, 2018.*
[12] Fuller, D., Gauvin, L., Kestens, Y., Morency, P., & Drouin, L. (2013). The potential modal shift and health benefits of implementing a public bicycle share program in Montreal, Canada. *International Journal of Behavioral Nutrition and Physical Activity*, 10(1), 66. doi:10.1186/1479-5868-10-66
[13] City of Calgary. January 2020. *Electric Scooter Share Pilot – Stakeholder Report*.
[14] Portland Bureau of Transportation. 2019. *2018 E-Scooter Findings Report*.

Based on these surveys, the assumed modal shifts applicable to Hamilton are:

- Trips previously made by auto-driver mode would account for 25% of shard micro-mobility trips;
- Trips previously made by transit account for 30% of shard micro-mobility trips;
- Trips previously made by walking account for 30% of shard micro-mobility trips; and
- The remainder of the shared micro-mobility trips, 15%, would come from cyclists who choose the shared mode over using their own bikes.

HBSI reports that in 2018 some 366,600 trips were taken on bike share, roughly 8% of all bike trips in the city. Based on the 2016 Transportation Tomorrow Survey (TTS), the average cycling trip in Hamilton is 3.4 km long. Walking trips tend to be shorter, averaging 1.3 km according to TTS so every walking trip diverted to shared micro-mobility would be shorter than the average bike trip in Hamilton. Other key assumptions made include:

- Every bike share trip includes an average 580 m of walking[15]—half of that to access shared micro-mobility and half to walk to the destination;
- TTS indicates that transit trips on HSR include about 650 m of walking to and from bus stops, so every transit trip diverted reduces walking;
- Trips made with personal bikes are assumed not to include any walking so every personal bike trip diverted adds some walking as described in the first bullet above;
- Rebalancing shared micro-mobility devices is usually done by truck and these vehicles are assumed add 64 auto VKT a day moving devices around; and
- Auto-driver trips are assumed not to include any walking so every auto-driver trip diverted also adds an element of walking.

Exhibit 4.3 summarizes the changes in distances for the auto-driver, walking, and cycling.

Exhibit 4.3: Changes in Total Distance Travelled by Mode over 2021-2025 Analysis Period

	Change in kms Travelled
Auto Distance Change	**-1,350,100**
Drivers switching to micro-mobility	-1,469,800
Rebalancing trucks	119,600
Walking Distance Change	**6,900**
Walkers switching to micro-mobility	-386,000
Transit users switching to micro-mobility	-10,400
Bike owners switching to shared micro-mobility	151,100
Drivers walking to micro-mobility	252,000
Cycling Distance Change	**3,619,000**
Walkers switching to micro-mobility	386,000
Transit users switching to micro-mobility	1,763,600
Drivers switching to micro-mobility	1,469,800

Note: Bike share trips are assumed to grow at the same rate as population growth, about 1.18% annually consistent with Ontario Ministry of Finance forecasts for Hamilton.

[15] Based on current station spacing of 300-400 m, although the distribution is not even throughout the service area.

Travel Time Savings

Cycling in Hamilton is faster than walking and transit, but slower than driving. Average cycling speeds in the GTHA tend to be around 14 kph while average walking speed is about 5.3 kph[16]. The average transit travel speed is taken to be 12.4 kph, which considers the Canadian Urban Transit Association (CUTA) reported average Hamilton Street Railway (HSR) speed of 18.1 kph, as well as a typical wait time of just over 11 minutes based on upcoming Fall 2020 schedules. Since each minute waiting feels more onerous to users than a minute spent travelling, that wait time is multiplied by 2.5 to arrive at the final travel time[17].

While all drivers do not see a travel time benefit, the 25% of drivers estimated to switch to micro-mobility are likely those who do experience some time savings, likely because they would otherwise have to drive in congested downtown conditions. The "Rule of Half" is applied here, recognizing that all users will not realize 100% of the travel time savings and only half the total travel time saved is counted. This brings the total travel time saved by switching to bike share to just over 10,000 hours per year.

Monetization of Benefits

Exhibit 4.4 shows the total benefits estimated. The quickly falling prices of e-bikes could allow transition of some of the fleet to e-bikes in the coming years with no increase in costs. However, the lower effort to pedal would reduce the cycling health benefit. To account for this potential, the cycling health benefit has been discounted 50% here.

Exhibit 4.4: Monetized economic benefits of shared micro-mobility

Benefit	Present Value (2020 $)
Benefits of Auto VKT Change	**$277,000**
Auto Operating Cost Savings	$122,000
GHG Emissions Savings	$13,500
Local Air Quality Savings	$2,500
Congestion Improvement Benefit	$139,000
Travel Time Savings+	**$876,500**
Walking Health Benefit	**$27,000**
Cycling Health Benefit (Discounted 50%)	**$3,171,500**
Sub-Total	$4,352,000
Economic Uplift and Recreational Benefit	20%
TOTAL BENEFITS	**$5,222,000**

Notes:
+Travel time savings are subject to the "Rule of Half", which only counts half the travel time saved because not all users are expected to realize 100% of the travel time savings.
Discount rate of 3.5% annually and all monetization rates are based on Metrolinx's business case guidance.

Just over 40% of the increase in cycling VKT, which represents most of the benefits, is due to auto-driver trip diversion. Diversion from transit represents about 50% of increased cycling VKT. While this cannibalization of another sustainable mode is not desirable, it only represents about 0.5% of annual HSR ridership while generating significant health benefits for those users who choose to switch modes.

[16] Based on Metrolinx Business Case Guidance
[17] Metrolinx Business Case Guidance suggests a weight of 2.5 for transit wait times.

4.2.4 Summary of Benefit-Cost Ratio

Two economic indicators are used to assess the economic case: benefit-cost ratio (BCR) and net present value (NPV). BCR is the total benefits divided by the total incremental costs. The BCR for continuing bike share service is 1.22. NPV takes the difference between the total benefits and incremental costs. The NPV for continuing bike share service is $951,000. The costs and benefits are summarized in Exhibit 4.5.

Note that this BCR does not account for Mobility, Equity, and Road Safety benefits.

Exhibit 4.5: Economic Cost-Benefit Comparison

Benefit	Present Value (2020 $)
Total Incremental Costs	**$4,271,000**
Capital Costs	$1,491,000
Operating Costs	$2,910,000
Cost of Base Case	-$130,000
Total Benefits	**$5,222,000**
Benefit-Cost Ratio	**1.22**
Net Present Value	**$951,000**

4.3 Financial Case

Costs and revenues in the financial analysis include a 2% annual inflation to real dollar values and a 5.5% annual discount rate, which differs from the economic case, consistent with the Metrolinx guidance. The financial case also considers fare revenues.

Based on 2020 revenue estimates made by HBSI, the current bike share system will be able to cover 29% of its operating costs through fare revenue, which is estimated to be $187,000 in 2020. The present value of net incremental costs over the base case amount to $3.5M over the five-year period. These costs are detailed in Exhibit 4.6.

Exhibit 4.6: Present Value (PV) of costs and revenues of the system, 2021-2025

Year of Expenditure	2021	2022	2023	2024	2025	TOTAL
Costs						
PV of Capital Costs	$0	$210,319	$677,804	$478,382	$63,358	**$1,429,863**
PV Operating Costs	$635,500	$626,500	$618,500	$609,500	$601,000	**$3,091,000**
Revenues						
PV of Fare Revenue*	$183,000	$178,500	$175,000	$171,000	$167,500	**$875,000**
Net Incremental Cost						
PV of Net Cost over Base Case	**$322,500⁺**	**$658,319**	**$1,121,304**	**$916,882**	**$496,858**	**$3,515,863**

Notes: Ridership assumed to grow at 1.18% per year, in line with Ontario Ministry of Finance population growth forecasts.
⁺2021 net incremental costs include $130,000 in bike storage/discard fees for the base case.
*Fare revenue based on information provided by HBSI and consider to be a conservative estimate based on current pricing.

4.4 Strategic Case

The proposed shared micro-mobility program, which includes a contracted operation directly managed by the City and a vendor-led permit-based system, advances the City's mission and its strategic priorities. Specifically:

- **Community Engagement:** HBSI, the current operator and future operator if the current contract is renewed, is a local not-for-profit whose directors and staff are drawn from within the community. Hamiltonians are deeply engaged in every aspect of running that operation as well as its equity program, the ERI;
- **Healthy & Safe Communities:** The health benefits of leading active lifestyles are clear and incorporating more cycling and walking to/from shared bikes and micro-mobility devices is an important way for more Hamiltonians to increase their activity levels. A public, shared micro-mobility system brings this opportunity to more residents across the city, particularly as the system expands into communities currently dominated by car travel;
- **Clean & Green:** The reduction in GHG emissions and improved local air quality are important impacts of shared micro-mobility as people choose bikes, scooters, and other devices over driving. While most micro-mobility users will shift from transit, walking, and using their own bikes, the estimated 25% of riders who will switch from driving will have a positive impact on the City's environmental goals; and
- **Built Environment & Infrastructure:** Achieving the City's multi-modal transportation goals, namely reducing dependence on single-occupant vehicles, depends on promoting, supporting, and prioritizing sustainable alternatives like micro-mobility. For the 230,000 daily car trips[18] in Hamilton that are less than 5 km long, shared micro-mobility may be an affordable, reliable alternative to driving.

4.5 Deliverability

Hamilton is well prepared to oversee the delivery and operation of shared micro-mobility. The city was an early adopter of bike share with its 2015 launch of the current system and today it remains the only city in the GTHA besides Toronto to have a shared micro-mobility system. City staff have therefore developed internal skills, processes, and knowledge to procure and manage the contracted shared micro-mobility program recommended by this study.

The existing bike share operator contract, which was taken over by HBSI and extends until February 2021, already makes provision for a 2-year renewal if the City and HBSI are both satisfied with the system's performance. HBSI, as the long-standing operator, has the skills and experience to operate the current system under contract, and their role managing the ERI program relieves the City of direct responsibility for administering the equity program.

The City of Hamilton is capable and well prepared to oversee the delivery and operations of the proposed shared micro-mobility program.

[18] Based on 2016 Transportation Tomorrow Survey, auto driver trips only.

5 Potential Funding Sources

The costs of running the recommended shared micro-mobility model can be grouped as follows:

- City staff time to oversee both the contractor and the permitted operators;
- Funding to process permit applications and enforce the permit rules through actions like removing abandoned vehicles from the public rights of way;
- Operating funds (net of revenues) to pay the operator for maintenance, rebalancing, etc.; and
- Periodic capital investment to replace old equipment, or to expand the system;

The first two costs are already largely covered by the City's existing budget allocations. The City already has staff that allocate a portion of their time to oversee the current bike share system, and the City of Hamilton Licensing and By-law Enforcement Division has the skills and resources to process and enforce permits. The new responsibilities of the licensing department would be funded through a permit application fee and fees for each enforcement action (fees would be determined by the licensing department on a cost recovery basis). The relationship with the permitted operators and the overall operation of the program would be through the Sustainable Mobility Program Manager which would be responsible for overall program policy, fee collection and distribution.

To ensure the financial sustainability of the base bike share system and equity program, it is estimated that around $450,000 per year would be required. Potential non-levy revenue sources that could be explored include revenues from parking, sponsorship, advertising, donations, and gas taxes.

This chapter describes different funding sources, estimates potential funding amounts and provides a preferred the factors used to assess the models, and recommends a preferred model for Hamilton.

5.1 Operating Costs to be Funded

Ongoing operations and capital investment would be new costs that need to be funded through new sources. Operating funds are harder to secure so this discussion focuses on operating funding sources. Estimates in Chapter 4 indicate that the present value of net operating costs in 2021 will be about $452,500 after user fees are considered.

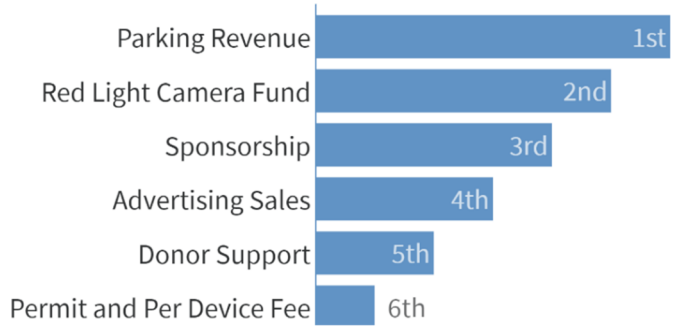
The funding sources available for micro-mobility in Hamilton include government sources, sponsorship and advertising, private donations and grants, and permit fees and the remainder of this section describes each of those sources.

It is recommended that the City prioritize securing red-light camera funds, parking revenue through small parking fine increases, Gas Tax funding, and station sponsorship.

5.2 Stakeholder Consultation Feedback

During the stakeholder consultation session, participants ranked potential funding sources for the City of Hamilton to investigate. Exhibit 5.1 shows the results of this activity below and highlight that stakeholders prioritized non-tax based municipal funding sources. These were thought to be stable funding sources and present the least amount of risk.

Exhibit 5.1: Stakeholder Ranking of Potential Revenue Sources



5.3 Government Funding Sources

Parking revenue, fines collected from red light cameras, and Ontario's Gas Tax Fund for Public Transit are potential stable government funding sources that could support micro-mobility. Municipal revenues are not meant to cover the full cost of the full bike share program. They provide a portion of the funding that covers the bare minimum cost. The operator will be responsible for collecting user fees, sponsorships and advertising to provide additional levels of service and replacement of parts.

5.3.1 Municipal Parking Revenue

The City of Hamilton collects revenue from parking lots, street parking, parking permits, and tickets. Revenue offsets direct operating costs of the parking program, and net revenues are directed to a reserve fund for future capital works or are otherwise allocated by Council.

Interviews conducted with the Managers of Parking Operations and Parking Enforcement revealed that parking tends not to generate enough profits to directly fund micro-mobility at the current rates (rates were increased in March 2020).

A previous analysis conducted by the City of Hamilton determined that a $10 per month increase for monthly parking permits would generate a net annual increase in revenue of $306,000 based on 2,550 monthly permits issued[19]. Higher rates could be levied in 2021 to support the bike share operations. Staff have the delegated authority to adjust parking rates in off-street lots.

The rationale for funding bike share operations from increases in monthly parking fees is to tie the programs together in terms of commuters. Bike share, along with public transit, creates new options for commuters and encourages them to use travel modes other than single occupant vehicles to get to work. A small increase in monthly parking fees that is used to partially fund the bike share program helps to offset the impact of daily commuter parking on the City's roads and congestion, and reduces the need to build more parking garages.

The City also has the option to increase parking fines. A $1 average increase, for example, could generate about $240,000.

It is recommended that the City of Hamilton conduct further research to determine the feasibility of using municipal parking revenue to fund micro-mobility operations. Staff should also seek clarity from Council and other City governments as to past precedence for using municipal parking revenue to fund operations of transit and shared mobility programs.

[19] City of Hamilton. November 19, 2019. *Parking Fee Review.* https://pub-hamilton.escribemeetings.com/filestream.ashx?DocumentId=212061

5.3.2 Red Light Camera Revenue

The City of Hamilton collects $260 for each red-light camera ticket issued, and net funds collected are directed to a road safety improvement reserve. In 2019, nearly 22,000 red light camera tickets were issued in the city[20]. Reserve funds have been used for a range of neighbourhood liveability, walkability, and safety initiatives. As levels of cycling increase, injury and fatalities have been shown to decrease. This effect is known as "safety in numbers" and is seen when comparing cyclist fatalities in countries that have high overall rates of cycling with countries with lower rates of cycling. Based on Transportation Tomorrow Survey and Hamilton Bike Share statistics, shared micro-mobility in Hamilton accounts for about 8% of bike trips, giving it a notable impact on the number of cyclists on the streets.

It is recommended that the City of Hamilton further investigate the use of a small portion of red-light camera revenue collected by the City of Hamilton to fund micro-mobility. Staff will need to seek clarity from City Council and work with the City's red-light camera team to ensure this is a viable option. Staff should also consult with other municipalities that allocate red-light camera funds to innovative, high-impact projects.

5.3.3 Gas Tax Funding

In the 2019-2020 year, Hamilton received $11.4M in Gas Tax funding for public transit from the Province. This funding can be spent on either capital or operating expenses of the transit system, including projects that increase transit ridership. To justify tapping into this funding source, the City would need to shape the future program so that it directly contributes to transit ridership. Staff will need to seek clarity from Provincial and Federal sources as to the intended use of the funds, and obtain clarification from City Council on using these funds for shared micro-mobility.

While data on bike-to-bus transfers in Hamilton are not available, the future system could be better integrated with HSR both physically with bike parking and stations at bus stops, and through fare integration that offers discounts to encourage those transfers. Promotional campaigns that encourage using micro-mobility as a first and last mile connection to HSR would also support these transfers.

Further discussion with HSR and City staff is required to detail any by-law or organizational changes that would be needed to justify allocating a portion of Gas Tax funds to micro-mobility (e.g. would the micro-mobility program need to be brought under the control of HSR to be eligible for funding, and what data reporting requirements would need to be met).

It is recommended that the City continue to investigate the use of a small portion of gas tax revenue to fund bike share operations. While this could be challenging since there is little precedent in Ontario, it should not be seen as a barrier. There is a demonstrated need for and strong benefit of transit and transit-supportive initiatives, so innovative ways to boost transit ridership should not be ignored.

5.4 Sponsorship and Advertising

5.4.1 Sponsorship

A micro-mobility sponsorship is an arrangement with a private company for a fixed amount of money that can be used for operations or capital purchases. There are different levels of sponsorship such as a title sponsor (highest investment covering entire system) or a station sponsor (limited to single or small subset of stations). A title sponsor typically reserves naming rights for the bikeshare system.

Based on previous experience and interviews with experts in the sponsorship field who have worked with Montreal, there is limited interest in major title sponsorship from a private organization in Hamilton. Station sponsorship may be more practical, and Hamilton bike share had a sponsorship program that offered station and bike sponsorship in the past. This could include local Business Improvement Areas (BIAs) and post-secondary institutions sponsoring stations near them.

In June 2020, a variety of sponsors contributed $100,000 to ensure the continuity of bike share, but this was an unusual year. **It is recommended that the City seek at least $60,000 annually in targeted station sponsorship revenue.** The City and its operator should also continue to work with 3rd party firms, the City's revenue generation office and local companies to develop a made-in-Hamilton sponsorship program that contributes a minimum of $500 per bike per year.

5.4.2 Advertising

Advertising enables companies offering products or services to display ads on the micro-mobility equipment (e.g. on bike baskets, on station infrastructure). Advertising requires an arrangement with a private company for a fixed amount of money that can be used for operations or capital purchases. Revenue can be earned by selling advertising at stations or on bicycles under different terms than a sponsor agreement. Advertising is typically a shorter agreement than a sponsorship agreement. Previously, Hamilton Bike Share had an advertising program that offered station poster space for upcoming events, products and attractions.

However, advertising tends to bring relatively low amounts of funding and it is unclear how much funding could be collected this way. The most efficient approach may be to lease advertising space on equipment to the same organization that currently manages other advertising on public property like benches and bus shelters.

It is recommended that the City of Hamilton utilize advertising revenue to fund micro-mobility operations by seeking at least $75,000 annually advertising revenue.

5.5 Donor Support

Donor support includes funding given to the operator or the City of Hamilton from private organizations or individuals (e.g. crowdsourcing). Donors may be recognized publicly but typically do not receive any promotional space on the equipment. The donor may receive a tax receipt from the City of Hamilton. Donor support is typically a one-time funding source, so effort would be required to raise donations annually to consistently fund the program. However, most donors will only contribute if the City is also contributing to operations.

In June 2020, HBSI raised over $72,000 to continue operations through crowdsourcing, plus $100,000 in one-time charitable contributions from a major donor but this was an unusual year. A donor-City matching program may be the most realistic approach moving forward, which means that the City would need to source some minimum amount of matching funds.

It is recommended that the City of Hamilton use donor funding for micro-mobility operations by seeking at least $25,000 from donors annually.

5.6 Permit Fees

Exhibit 5.2 shows example fees associated with non-exclusive for-profit permit models in some North American cities. Fees tend to reflect both direct and indirect program costs as well as programming to support safe, equitable use of micro-mobility like Hamilton's ERI program.

Exhibit 5.2: Example Permit Fees for Non-Exclusive Operators

Fee Type	Fee Amount
Application/Permit Fee	$600 per application (Calgary) $150 (Denver) $2,500 (Oakland) $20,000 (Los Angeles, Santa Monica)
Per Device Fee	$50 (Calgary) $130, reduced to $39 in disadvantaged communities (Los Angeles) $130 + $1/day (Santa Monica)
Per Trip Fee	$0.10 when parked or left standing in a metered zone during hours of operation (Oakland)
Performance Bond	$25 per Electric Scooter to a maximum of $15,000 per Permit Holder (Calgary) $15 per device to a maximum of $5,000 per permit holder (Kelowna) $20/bike & $30/e-scooter (Denver) $80/vehicle (Los Angeles) $10,000 (Seattle)
Electric Scooter education and encouragement	$10 per Electric Scooter (Calgary)

It is unusual for permit fees to cross-subsidize contracted operations run by the city. Washington DC, Portland, and Minneapolis are some examples of cities with mixed contracted and permitted operators and the programs tend to be funded separately. From a commercial perspective, it may be challenging for Hamilton to justify charging a for-profit entity a fee to subsidize what is in effect a competitor. The City risks not attracting and retaining any permitted operators if they must agree to cross-subsidize.

However, Hamilton also has Canada's first and one of North America's top micro-mobility equity programs. In order to ensure the equity program is supported, it may be justified for for-profit operators to have to provide an equity fee to the ERI to offset the impacts of operations. It should be noted that a review of for-profit equity programs indicate they are not comprehensive or community-based and therefore should not be relied upon as an equity strategy. The ERI should be considered the only equity program that all operators must contribute to because it is an existing community-based program that has maintained strong relationships with groups in the City that help those in need.

Should a permit-based operating model be chosen by the City, **it is recommended that the City charge for-profit operators between $45,000 and $125,000 annually to fund the ERI.** The City would need to conduct a more thorough assessment of potential funding needs of the ERI program to finalize this figure.

5.7 Capital Grant Programs

Grant funding for capital investment is usually easier to secure and City staff have been successful in securing capital funds from a range of sources over the lifetime of the existing system. The City of Hamilton should also continue to apply to the appropriate provincial and federal grant programs to enhance or complement the existing infrastructure and programs. Potential grant programs include but are not limited to:

- Canada Healthy Communities Initiative, Government of Canada;
- Public Transit Infrastructure Fund, Government of Canada;
- Grow Grants, Ontario Trillium Foundation; and
- Green Municipal Fund, Federation of Canadian Municipalities.

6 Expansion Strategy

The existing micro-mobility service area is primarily located in the lower city in Wards 1, 2, 3, and 13. Expanding the micro-mobility service area to the rest of the City of Hamilton's urban areas is a priority, but this expansion must be done in a phased approach. The approach should have the appropriate number of devices and stations and the required capital and operating funding to ensure the expanded system does not fail as a result of overexpansion.

The proposed strategy focuses on neighbourhoods with the highest propensity to use micro-mobility based on travel behaviour and demographic considerations. Based on this strategy, the priorities should be the areas surrounding Mohawk College, St. Joseph's Healthcare Hamilton West 5th Campus, Kenilworth Street corridor, Upper James Street corridor, and Eastgate Square.

In all, the expansion to the entire 30 km^2 area with the highest propensity outside the current service area could cost $2.3M for 120 stations and 557 bikes, as well as about $435,000 a year in operating costs. These costs would be phased in over time as funding becomes available.

The rest of this chapter describes the approach to prioritizing the expansion areas.

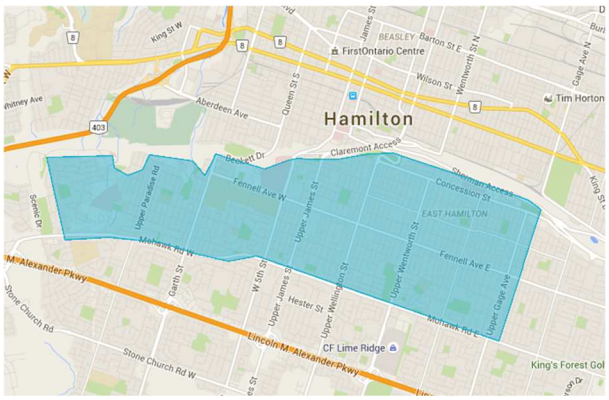
6.1 Existing Expansion Plans

A "Mountain Bike Share Feasibility Study" was prepared in 2016 to evaluate the feasibility of extending the existing bike share system to the Hamilton Escarpment neighbourhoods ("the Mountain"). This study included infrastructure and operational costs required to properly establish and serve a significant portion of Wards 6, 7 and 8, as well as other key considerations. Two system design options were considered:

- **Option 1:** Small Mountain Expansion (Upper Gage to Garth to Fennel, 5.3 km^2) shown in Exhibit 6.1, and
- **Option 2:** Large Mountain Expansion (Upper Gage to Scenic to Mohawk, 13.2 km^2) shown in Exhibit 6.2.

Exhibit 6.1: Option 1: Small Mountain Expansion

Exhibit 6.2 Option 2: Large Mountain Expansion



The study determined that the capital cost to establish a Mountain system would be between $577,000 and $1.4 M, depending on the extent of the service area. Annual operations would cost between $148,000 and $263,000. The cost estimate did not take into consideration user fees (revenue).

6.2 Approach to Prioritizing Expansion Areas

A propensity analysis of the City of Hamilton was conducted to find areas outside of the existing service area that could best support shared micro-mobility. The results of the propensity analysis show the relative likelihood of micro-mobility demand.

The analysis is organized by a grid of 500-metre-wide hexagons clipped to Hamilton's boundary. The size of the hexagon corresponds roughly to a coverage area of a micro-mobility station (5 to 10-minute walk).

Exhibit 6.3 outlines the data and weighting used to create the propensity map. These factors are typically found in areas of high micro-mobility demand and act as a data-driven guide to where shared micro-mobility deployments may be most used by residents. The propensity analysis uses proportional scaling, where each factor is normalized into a score between 0 and 1 before being weighted. The analysis constrains outliers at the top of each sample range so that all values over a particular percentile rank (99% for most measures) receive a score of 1. A weighting factor was applied to the factors considered stronger predictors of micro-mobility demand. Data from the Transportation Tomorrow Survey (TTS), the City of Hamilton's Open Data Portal, and Metrolinx was used to complete the analysis.

Exhibit 6.3: Data Used in Micro-mobility Propensity Analysis

Data	Source	Weight
Population density by traffic zone	TTS	2
Density of young people (20 – 35 years old) per traffic zone	TTS	1
Number of trips by bike or walking	TTS	2.5
Number of trips by transit	TTS	0.5
Number of zero car households	TTS	1
Number of jobs per traffic zone	TTS	0.5
Number of school trips (over the age of 16) per traffic zone	TTS	0.5
Metres of bike infrastructure within one kilometre	City of Hamilton	0.75
Distance to A and B Line Express (within 2 km)	City of Hamilton	0.5
Community centers (2 km radius)	City of Hamilton	0.5
Post-Secondary Institutions (2 km radius)	City of Hamilton	0.5
GO Train stops within 2 km	Metrolinx	0.5

Below is a description of why each factor is used in this propensity analysis:

- **Population density by traffic zone:** Where there is a higher population density, there are more potential users to use the micro-mobility service;
- **Density of young people (20 – 35 years old) per traffic zone:** People between the ages of 20 and 35 are most likely to use micro-mobility services;
- **Number of trips by bike or walking:** The number of existing walking and bike trips demonstrate where demand for a micro-mobility service is and is one of the best indicators of micro-mobility demand;
- **Number of trips by transit:** Micro-mobility services is often used to connect to transit as a "first and last-mile" connection.

- **Number of zero car households:** Households that do not have a car are more likely to use micro-mobility services compared to households that have access to a privately-owned car;
- **Number of jobs per traffic zone:** Employment is a large factor that influences micro-mobility demand as where there is a higher number of jobs, there are more potential users to use the micro-mobility service;
- **Number of school trips (over the age of 16) per traffic zone:** Students are less likely to own a car and rely on sustainable modes like micro-mobility services and transit to travel to and from school and recreationally. Post-secondary students are the most likely to use micro-mobility services as high school students that live outside of walking distance to schools are usually provided with school bus service.
- **Metres of bike infrastructure within one kilometre:** Access to cycling infrastructure within one kilometre provides potential users with infrastructure to use;
- **Distance to A and B Line Express (within 2 km):** Micro-mobility services are often used to connect to rapid transit as a “first and last-mile” service and are most successful when strategically located to support rapid transit service;
- **Community centers (2 km radius):** Community centres are popular destinations for members of the community;
- **Post-Secondary Institutions (2 km radius):** Post-secondary institutions major destinations for micro-mobility services; and
- **Regional Transit stops (GO Station) (within 2 km):** Micro-mobility services are often used to connect to regional transit as a “first and last-mile” service and are successful when strategically located to support regional transit service.

6.3 Preliminary Expansion Priorities

The results of the propensity analysis are displayed in Exhibit 6.4. These red areas highlight neighbourhoods outside of the existing service area that have the greatest potential for a micro-mobility service. The areas of highest micro-mobility propensity are concentrated in Wards 4, 5, 6, 7, 8, and 14.

The areas highlighted encompass key destinations such as the area surrounding Mohawk College, St. Joseph’s Healthcare Hamilton West 5th Campus, Concession St & the Mountain Brow, Kenilworth Street corridor, Upper James Street corridor, and areas surrounding Eastgate Square.

The areas highlighted between Upper Sherman Ave and Mountain Brow Blvd, north of Fennell Ave E should be reviewed in greater detail prior to finalizing an expansion plan on the Mountain. The service area, number of stations and bikes may differ upon the completion of a detailed feasibility study of the area and consultation with residents.

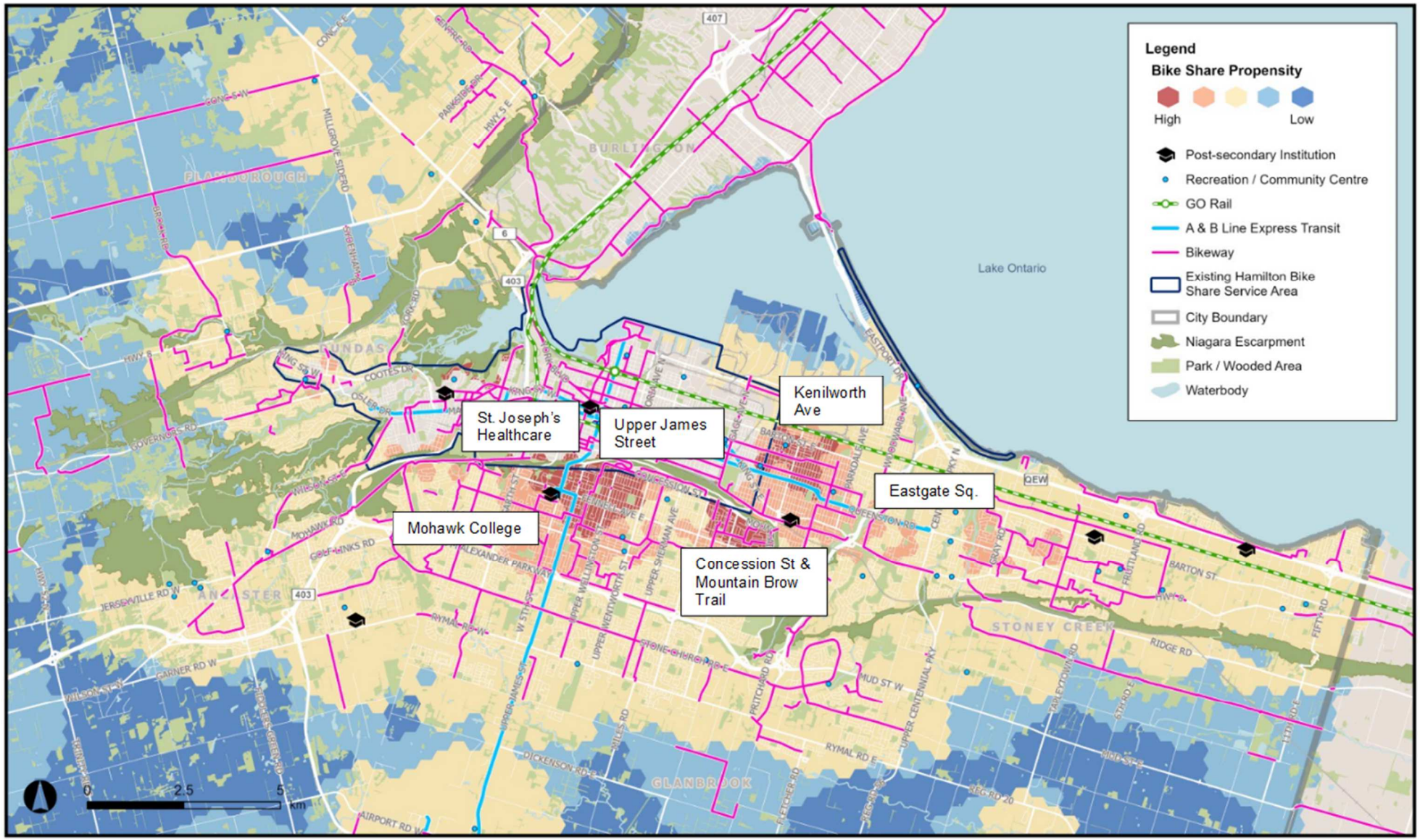
The total area of these highlighted areas is 30 km^2. Based on the existing service levels in Hamilton, there are approximately 4 stations per square kilometre. Approximately 120 stations are required in addition to the existing 130 stations to successfully expand the system to the highlighted areas. The installation cost is included in the capital cost. The capital costs for a variety of stations (e.g. no signage, small, large, kiosk, etc.) is approximately $1.2M. The total population of the identified area is 87,090. Based on existing service levels in Hamilton, there are approximately 6.4 bikes per 1,000 residents. Approximately 557 bikes are required in addition to the existing 825 bikes. The capital costs for 557 bikes is approximately $1.1M. **The**

total capital cost estimate for this expansion would be approximately $2.3M for 120 stations and 557 bikes.

Based on the estimated operating cost of the existing system, this expansion would cost approximately $36,000 per month to operate. This operating cost estimate does not consider the additional distance that would be required for the operators to travel, additional storage and fleet maintenance space required, and additional vehicles required for the expansion. **The total operating cost estimate for this expansion per year would be approximately $435,000.**

The expansion should be phased in over time (e.g. expand to Kenilworth, then Stoney Creek, then the Mountain). The capital and operating cost to expand would likely be distributed over several years. A detailed feasibility study is required to determine the phasing of expansion to these priority areas.

Exhibit 6.4: Map showing micro-mobility propensity in Hamilton



6.4 Other Strategic Destinations

The propensity analysis is a quantitative analysis that does not consider other qualitative factors such as local cycling culture, topography, local community, key destinations, and future rapid and regional transit.

Other areas to consider in future expansion areas include but are not limited to:

- **Local Community Hubs:** Local hubs such as Downtown Ancaster, Downtown Stoney Creek, and Downtown Waterdown are popular destinations for members of the community but do not reflect the same quantitative characteristics of a successful micro-mobility service such as population and employment density;
- **Key Destinations:** Key destinations that are major attractions for Hamiltonians that are isolated from other factors that support micro-mobility such as Conservation Areas are popular for recreational activities. Other destinations such as the Royal Botanical Gardens is accessible by bike, but is located in Burlington; and
- **Future Regional Transit:** All-day, hourly GO Train service from Confederation GO located near Centennial Parkway N and the QEW is planned. Regional transit hubs such as Confederation GO are major destinations for micro-mobility, however, it is unclear as to when all-day service will be available at the GO station.

7 The Way Forward

This study has shown that while Hamilton's existing bike share system may currently be in a precarious state due to organizational, contractual, and funding challenges, the fundamentals of the system are sound. Bikes and stations are in good condition, 5% of the population are active members of the program, and HBSI has proven to be a reliable, community-based operator whose mandate aligns well with the City's sustainable mobility goals. The growth in dockless e-bike and e-scooter businesses provides opportunities to broaden the scope of micro-mobility in Hamilton by welcoming well-run players to complement the City's system.

- Peer cities that already had successful bike share systems before the rise of venture-funded operators, like Hamilton, have found success in hybrid programs: Permit-based systems, where operators pay the City for the right to run their dockless vehicles, plus a City-run contracted system where the City has direct control over operations. Targeted equity programs ensure that low income and other marginalized groups have access to shared micro-mobility.
- Hamilton and its contracted operator HBSI have the skills, experience, and resources to run a similar hybrid system given Ontario's E-Scooter Pilot program. The City's Licensing and Compliance Department is already equipped to develop and enforce a permit program working with the Sustainable Mobility Program Manager. The City and HBSI can renew the contract in February 2021, maintaining the current program and avoiding the costs of a lengthy procurement.
- The net incremental costs of running the hybrid program from 2021-2025 is $3.5M (just over $450,000 a year), which includes periodic replacement of end-of-life assets and fare revenue. The economic case for the contracted operation has a benefit-cost ratio of 1.22 and a net present value of $951,000 over the five years. This excludes additional Mobility, Equity, and Road Safety benefits, which were not quantified.
- Shared micro-mobility aligns with the City's strategic priorities of Community Engagement, Healthy & Safe Communities, Clean & Green, and support Built Environment & Infrastructure through supporting multimodal transportation. It can provide a reliable and affordable alternative to the 230,000 daily auto-driver trips in Hamilton that are less than 5 km long.
- Potential non-tax-based funding sources can generate funds to cover portions of the annual operating costs. Potential sources include some of the net revenues from the City's Parking Program; a portion of the Red-Light Camera Fund; some revenue from the Ontario Gas Tax Funding for Transit; and Sponsorship, Advertising, and Donations. Any excess funds could be used to expand the existing system, purchase new technology, and support a greater level of service.
- Roughly 30 km^2 of Hamilton on the mountain and just east of the current service area show the highest propensity for micro-mobility trips, namely areas around Mohawk College, St. Joseph's Healthcare Hamilton West 5th Campus, Kenilworth Street corridor, Upper James Street corridor, the Mountain Brow Trail, and areas surrounding Eastgate Square. These are highest priority areas for expansion and could cost about $2.3M in capital funds and cost approximately $435,000 per year to operate.

This study provides the City with an evidence-based analysis that drew on local data, direct stakeholder engagement with Hamilton's cycling community, and broad research on and interviews with cities across North America that have successful shared micro-mobility programs. With this information, the City is well prepared to take the next steps to ensure that shared micro-mobility remains an integral part of getting around Hamilton for years to come.

Appendix A – Summary of Organizational Characteristics of Peer Systems

Summary of Organizational Characteristics of Peer Systems

	Org. Structure	Operations Funding	Capital Funding	Service Expansion Approaches	Equity Programs
Toronto	Public administration, single private operator (5-year term)	User fees, partnerships (CAA) and public subsidy. No title sponsor or advertising revenue	Metrolinx, Public Transit Infrastructure Fund (Federal Grant), Public Realm Reserve Fund, TPA Capital Expenditure Reserve Fund (2018)	Annual expansion depends on amount of capital funding available. Pilot satellite locations in 2020 to expand into inner suburbs (York U, Scarborough)	None, though recent discussion has focused on expanding to lower income areas outside of the downtown core.
Vancouver	Public administration, single private operator	User fees, title sponsorship, city subsidy			Low income annual pass, no credit card required
Calgary	Permit-based system	Permit fees by operators	n/a		None.
Kelowna	Permit-based system	Permit fees by operators	n/a		None.
Philadelphia	Public administration, single private operator (10-year term)	User fees, advertising revenue, title sponsorship, station sponsorships	City, state and federal funding		Low income passes, locating of new stations in underserved areas.
Minneapolis	Public administration, single private operators (bikes, e-bikes, e-scooters), permit system for other e-scooter operators	User fees, major sponsorship	Major sponsor, city and federal funding (system launch)		Minimum number of scooters must be deployed in areas lacking last-mile transit options, low income pricing options and alternative access programs must be provided (cash and non-smartphone)

	Org. Structure	Operations Funding	Capital Funding	Service Expansion Approaches	Equity Programs
Washington (Metro Area)	Public administration, single private operator (Capital Bikeshare); permit-based system for other private operators	User fees, advertising revenue, development proffer revenue; shortfall made up through General Fund revenue; permit fees by operators	DDOT capital budgeting – no specific source	Policies: Balance between growth and infill; half of all new stations should be located in equity and access areas	Low income passes, target expansion to lower income areas, overarching objective to reach parity between ridership and general District population (ethnicity, gender, income, etc.)
Portland	Public administration, single private operator, permit-based system for private operators	User fees, title sponsorship. No city money for operations.	Title sponsorship contributed to initial capital costs, federal grants,		Low income discount program (BIKETOWN for all), low income pricing plan for e-scooters, program to allow e-scooter rentals without needing a smartphone, equity clause built into permit system for e-scooter distribution
Seattle	Permit-based system	Permit fees by operators	n/a		Equity Focus Areas where operators are required to distribute 10% or more of deployed fleet, low income pricing.

PED20109c

PUBLIC BIKE SHARE PROGRAM PHASED PROCUREMENT PROCESS

November 16, 2020

P. Topalovic

Planning and Economic Development
Transportation Planning

Key Plan Elements

- Background – how we got here
- Hybrid Phased Procurement Operating Model
- Potential for Expansion
- Long Term Plan

How we got here

2013

Metrolinx awards $1.5M infrastructure grant to acquire equipment

2014

Social Bicycles LLC (SoBi) and City sign 5-year operating contract.
Hamilton Bike Share Inc. (HBSI) not-for-profit sub-contracted to operate service.

2015

System launched with 115 stations, 750 bikes serving 35 km².
Everyone Rides Initiative (ERI) equity program launched by HBSI.

2016

10K active users and 500K sustainable trips completed.
TAC Sustainable Urban Transportation Award and Canada Clean 50 Award.

2017

+ 75 bikes
Total 825 bikes

+ 15 stations
Total 130 stations

ERI facilitates 75 new bikes and 15 new stations

2018

SoBi rebrands to Jump, Jump acquired by Uber

2019

City renews operating contract with Uber for 2 years.
Uber terminates sub-contract with HBSI.

2020

Uber terminates operating contract with City.
HBSI receives donor support to take over operation through Feb 2021.

Hybrid Micromobility Phased Procurement Process

Maintain Current Base Bike Share Program and Equity Program

Operated by HBSI
(2 year contract extension)

+

Add New Commercial Micromobility Permits

Operated by Various Commercial Operators - up to 3 contracts
(2 years each)

Current Base Bike Share Program

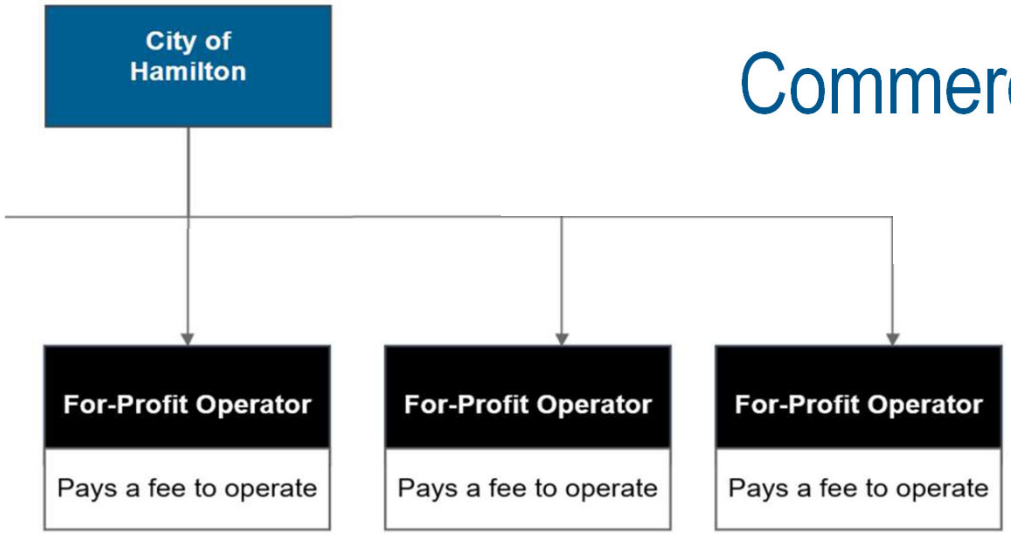
Overview

- City owns bike share equipment and stations
- System is stable and designed for reliable operations
- Equity is the key operating imperative of the system
- Connects to and supports public transit/HSR

Benefits

- Bike share operations are maintained without City funds
- Provides a sustainable service
- Ensures equity programming and access for all citizens
- Private sector funding is provided to bike share to reduce impact to operations

Commercial Micromobility Permits



Overview

- Private sector owns equipment
- Operators on a 2 year contract
- No requirement for stability or equity
- Fees collected contribute to base bike share operations and enforcement
- Allows testing of the market

Benefits

- Self-funded through contracts and application fees
- Enforcement to ensure safety
- Provides funding for base bike share and equity
- Allows private sector to test the market without compromising bike share operations and equity

E-Scooters?

- **Most micromobility permit programs are centred around privately operated commercial e-scooters.**
- **Many cities in Canada and the United States have e-scooters operating alongside base bike share systems or are testing e-scooter programs.**
- **A permit or similar process in Hamilton would allow Staff to evaluate e-scooters during the first phase of the procurement to determine if they should be included in the long term bike share procurement.**
- **Inclusion of e-scooters in the future operating framework will be reviewed after Committee and Council has had an opportunity to consider E-Scooters as part of a separate report to be presented in Q4 2020.**

Funding and Operations Precedent

The Hybrid Model is a predominant micromobility model used in many cities through public private partnerships including:

- **Washington, DC**
- **Arlington, VA**
- **Chicago, IL**
- **Austin, TX**
- **Portland, OR**
- **Indianapolis, IN**

NABSA
NORTH AMERICAN BIKESHARE ASSOCIATION

Provides Resources to manage micro mobility

All of these cities have hybrid operating models and fund their systems in part or in full through various mechanisms.

Potential Expansion Planning

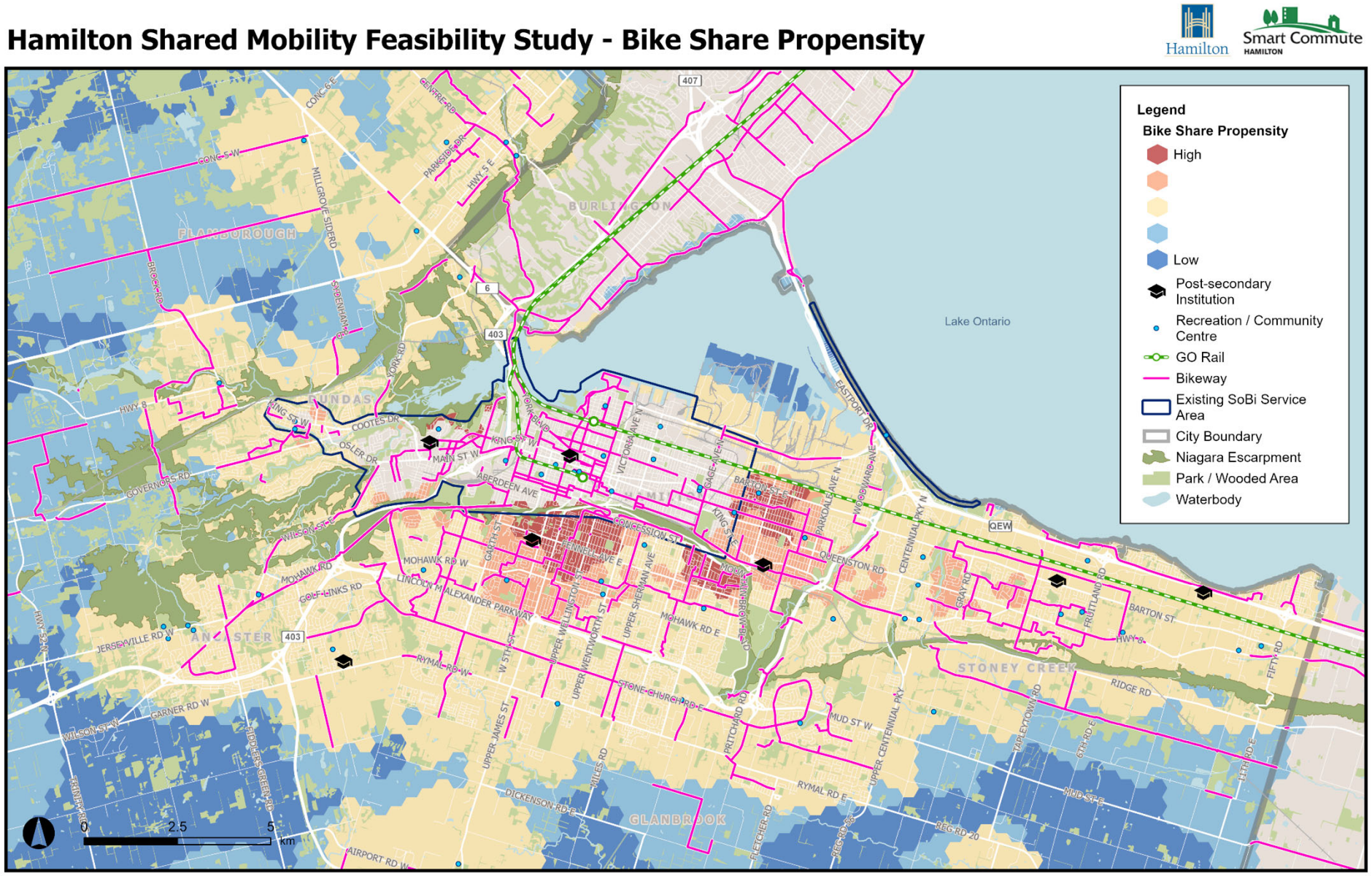
Operators will be encouraged to provide additional coverage in all areas of the City they can accommodate.

Research indicates that there are key areas that can support bike share beyond the current service area.

Areas on the map coloured in red are the next expansion areas that the data indicates are most viable places to begin expanding.

Expansion to new areas will be a business decision of the operator.

Potential Expansion Areas Map



Long Term Plan

Phase 1 (2021 – 2022): represents the first step in the phased procurement process:

- **Continue to operate the base bike share program**
- **Develop a long term business plan for bike share**
- **Upgrade current system**
- **Secure long term financing**
- **Potentially test new technologies**

Phase 2 (2023 – 2028): implement the long term strategy for the base bike share program:

- **Report back in Q2 of 2022 on preferred procurement process**
- **Initiate the procurement process in Q4 of 2022**
- **Launch the new base program in Q2 of 2023**

Report Recommendations

(a) That staff undertake a phased approach to the securement of a long-term operator for the City's bike share operations, comprising the following:

(i) Entering into a contract extension with Hamilton Bike Share Inc. for a period up to December 31, 2022 to continue operation of the existing base bike share system based substantially on the same terms and conditions as the existing agreement;

(ii) Establishing a fee-based non-exclusive contract system for the operation of micro-mobility technologies in the City right-of-way, and initiating an open, non-exclusive process for private operators to obtain the ability to operate micro-mobility technologies in the City;

(b) That staff be directed to report back to the Public Works Committee on the recommended process, structure, scope and fees for a micro-mobility contract system as well as any necessary by-law changes;

Report Recommendations

(c) That Council authorizes, directs, and delegates authority to the General Manager, Planning and Economic Development Department, to execute, on behalf of the City of Hamilton, the necessary agreements to extend the existing contract with Hamilton Bike Share Inc. for a period up to December 31, 2022, all in a form satisfactory to the City Solicitor; and,

(d) That staff evaluate the results of the phased approach for the securement of the City's bike share operations and report back to Council no later than Q2 2022 with a recommended procurement process to secure a long-term micro-mobility operator or operators for 2023 and beyond.

THANK YOU

CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Transportation Operations and Maintenance Division
and
PLANNING AND ECONOMIC DEVELOPMENT DEPARTMENT
Transportation Planning and Parking Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	November 16, 2020
SUBJECT/REPORT NO:	Road Safety Review and Appropriate Measures at the York Road and Newman Road Intersection (PW20071/PED20196) (Ward 13) **(Outstanding Business List Item)**
WARD(S) AFFECTED:	Ward 13
PREPARED BY:	George Vidovic (905) 546-2424 Ext. 4542 David Ferguson (905) 546-2424 Ext. 2433 Mike Field (905) 546-2424 Ext. 4576
SUBMITTED BY: **SIGNATURE:**	Edward Soldo Director, Transportation Operations & Maintenance Public Works Department 
SUBMITTED BY: **SIGNATURE:**	Brian Hollingworth Director, Transportation Planning and Parking Planning and Economic Development Department 

RECOMMENDATION

(a) That the concept of a new roundabout at York Road and the Highway 6 ramp Terminal, which is being studied as part of an on-going design project by the Ministry of Transportation (MTO), be endorsed in principle as a design solution for this intersection;

(b) That the on-going review of the application for development at 574 Northcliffe Avenue which has been submitted to the Niagara Escarpment Commission take into account the current design study being conducted by MTO as well as future planned improvements by the City for York Road at Old Guelph Road, and that efforts be made to coordinate any mitigation measures triggered by the development with these on-going projects; and,

(c) That the Outstanding Business List Item respecting Road Safety Review and Appropriate Measures at York Road and Newman Road Intersection, be considered completed and removed from the Public Works Committee Outstanding Business List.

EXECUTIVE SUMMARY

On July 9, 2019 the City Planning Committee considered an application to amend Town of Dundas Zoning By-law No. 3581-86 respecting lands located at 574 Northcliffe Avenue, Dundas (PED19132). At the July 2019 meeting, a number of concerns were raised with regard to traffic operations and safety at the intersection of York Road and Newman Road. At the subsequent July 12, 2020 Council Meeting, staff were directed to initiate a road safety review and identify appropriate measures at the York Road and Newman Road Intersection.

Transportation Operations and Maintenance has completed a safety review of York Road between Old Guelph Road and Highway 6. Based on existing conditions, the intersection of York Road and Newman Road does not meet the warrants for the installation of traffic control measures. A review of the collision history between 2014 and 2018 does not identify safety concerns.

As directed by Council, Transportation Planning staff initiated discussions with the Ministry of Transportation (MTO) with regard to options to improve traffic operations and safety along York Road in the vicinity of Newman Road. Through an on-going Preliminary Design Study initiated in April 2019, the MTO has developed a design concept for a roundabout at the Highway 6 at York Road West Ramp Terminal. Opportunities to modify this design to include a westbound left turn lane at York Road and Newman Road are being considered.

Transportation Planning staff have also been working with the transportation consultant representing the owners of 574 Northcliffe Avenue. In anticipation of the application for the development on this site, which is to include up to 1000 students, staff requested that a Road Safety Review be completed. The Road Safety Review identified a number of potential safety improvements. Staff will provide comments on the proposed improvements as part of the development application review process and through Planning Committee and Council.

A final improvement that will have an impact on York Road is the planned installation of a new traffic signal at Old Guelph Road. Transportation Operations & Maintenance staff have prepared a preliminary design for this signal and funding needs have been identified in the Capital Budget.

Alternatives for Consideration – See Page 6

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: Project ID 4662220223 New Traffic Signal – York Road at Old Guelph Road was planned as part of the 2020 Capital Budget process with a project start in year 2022 at a gross cost of approximately $500,000 with a net cost of $24,000. The majority of the project is estimated to be funded by development charges. By approving this Report there are no financial commitments. The project will be put forward for approval during the 2022 Capital Budget process for Council consideration.

Staffing: N/A

Legal: N/A

HISTORICAL BACKGROUND

A temporary residence was approved for 574 Northcliffe Avenue, the former Sisters of Joseph Convent, in the summer of 2019. In October 2019, the location began operating as a temporary Columbia International College student residence. Currently there are approximately 51 students living in the building.

On July 12, 2019, Council approved Notice of Motion 8.1, Road Safety Review and Appropriate Measures at the York Road and Newman Road Intersection and provided the following direction:

(a) That staff be directed to undertake and review the intersection and road safety at the intersection of York Road and Newman Road, identify the appropriate road safety measures and report back on the feasibility of implementation measures;

(b) That staff be directed to negotiate with the applicant of 574 Northcliffe Road to enter into a cost-share agreement to undertake a safety review for the impact of additional traffic and school buses resulting from the development application; and,

(c) That staff be directed to liaise with the Ministry of Transportation to investigate the option to improve traffic operations and safety along York Road in the vicinity of Newman Road.

In July 2020, an application for a Niagara Escarpment Plan Amendment by Columbia Northcliffe Campus Inc. for Lands Located at 574 Northcliffe Avenue was circulated to relevant agencies and the City of Hamilton. The applicant proposes to amend the Niagara Escarpment Plan (NEP) to revise a special policy that applies to 574 Northcliffe Avenue. The site-specific policy would allow the use of the former convent of

the Sisters of St. Joseph as a private secondary school with a maximum of 1,000 students and 80 staff with an accessory gymnasium addition attached to the existing building.

On April 15, 2019, unrelated to the development of 574 Northcliffe, the MTO issued a Notice of Study Commencement for Proposed Intersection Improvements at Various Locations in the City of Hamilton and Halton Region Preliminary Design and Class Environmental Assessment. Five locations are being analysed as part of the study, one of which is Highway 6 at York Road West Ramp Terminal.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

N/A

RELEVANT CONSULTATION

The MTO was engaged with respect to the direction by Council to liaise with the MTO to investigate the option to improve traffic operations and safety along York Road. In addition, staff have participated in two technical meetings related to the Preliminary Design and Class Environmental Assessment for various intersections including Highway 6 at York Road West Ramp Terminal.

Staff have also had communications with the transportation consultant for Columbia College, IBI Group.

ANALYSIS AND RATIONALE FOR RECOMMENDATION

York Road is classified as an arterial roadway with a rural cross section and has a posted speed limit of 60 km/h. Newman Road is a local rural roadway with a posted speed limit of 50 km/h. As shown in Appendix “A” to Report PW20071/PED20196, the neighbourhood is landlocked.

In 2019, Transportation Operations & Maintenance conducted a review of the intersection and the corridor of York Road. Based on existing conditions, it was determined that the intersection of York Road and Newman Road does not warrant the installation of a traffic signal (4% warranted). In a 24-hour period, 600 vehicles use Newman Road, while for the same 24-hour period, 11,000 vehicles use York Road. A review of the collision network screening rankings identified that this location has had one collision between 2014 and 2018. Overall the intersection ranks 1,875 out of 2,731 locations and does not identify a safety risk.

A review of the York Road corridor between Highway 6 and Old Guelph Road, identified that the 85th percentile speed (the speed at which 85 percent of the vehicles travel at or

below) is between 67 km/h and 72 km/h. A review of the collision network screening rankings identified that this location has had a total of four collisions, all single motor vehicle collisions. Overall this segment ranks 1,561 out of 2,731 locations and presents a minimal safety risk.

Staff have previously identified the intersection of York Road and Old Guelph Road for the installation of a traffic signal (currently controlled by an all-way stop). The addition of the traffic control device will further enhance access to and from Newman Road by creating gaps in traffic for motorists.

Concurrently, Transportation Planning have been working with the transportation consultant IBI Group representing the owners of 574 Northcliffe Avenue, in anticipation of the application for the development on this site, which is to include up to 1,000 students. A Traffic Impact Study (TIS) and Road Safety Review was prepared by the consultant for this application. Formal comments on this TIS and Road Safety Review will be provided through the regular development review process. The analysis indicates that with the addition of site traffic, the intersection of York Road and Newman Road will operate at with acceptable levels of service assuming a stop-controlled configuration.

The Road Safety Report prepared as part of the development application also identified a number of counter measures that could address speeding and other safety concerns on York Road, not necessarily related to the development. These include:

- Install a flashing overhead beacon at the York Road and Newman Road intersection, which would flash amber for York Road and red from Newman Road;
- Trim foliage along the south side shoulder of York Road to improve sightlines and intersection visibility;
- Increased speed enforcement; and
- Re-profiling the west leg of the York Road / Newman Road intersection to remove the dip in the road.

Some of these may be achieved through planned improvements on York Road including the construction of a roundabout at the Highway 6 off-ramp and the installation of a new signal at Old Guelph Road. A final assessment of improvements resulting from the development at 574 Northcliffe Road will be completed as part of the development review process.

As noted previously, the MTO is currently in the process of investigating interchange upgrades at the York Road and Highway 6 ramp terminal. Through this process, the MTO is proposing a roundabout at the Highway 6 off ramp. Transportation Operations & Maintenance provided copies of the Columbia College traffic impact study to the MTO.

Evaluation by the MTO determined that it would be appropriate to install a westbound left turn lane to Newman Road. In addition, it has been mutually identified that widening of York Road to facilitate cycling infrastructure would be needed. The MTO is working on design plans to facilitate the changes to York Road and further coordination will continue.

ALTERNATIVES FOR CONSIDERATION

Public Works Committee and/or Council could provide direction to install an all-way stop or traffic signals at the intersection of York Road and Newman Road. However, based on staff evaluation of traffic volume patterns, this is not recommended. This would further require MTO approval due to the potential operating impacts of the ramp terminals.

The installation of unwarranted traffic controls can cause driver frustration, stopping compliance and create an operational and safety concern. If Council were to direct staff to implement traffic control, the cost for implementing an all-way stop would be approximately $3,000 or $200,000 for a traffic signal.

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

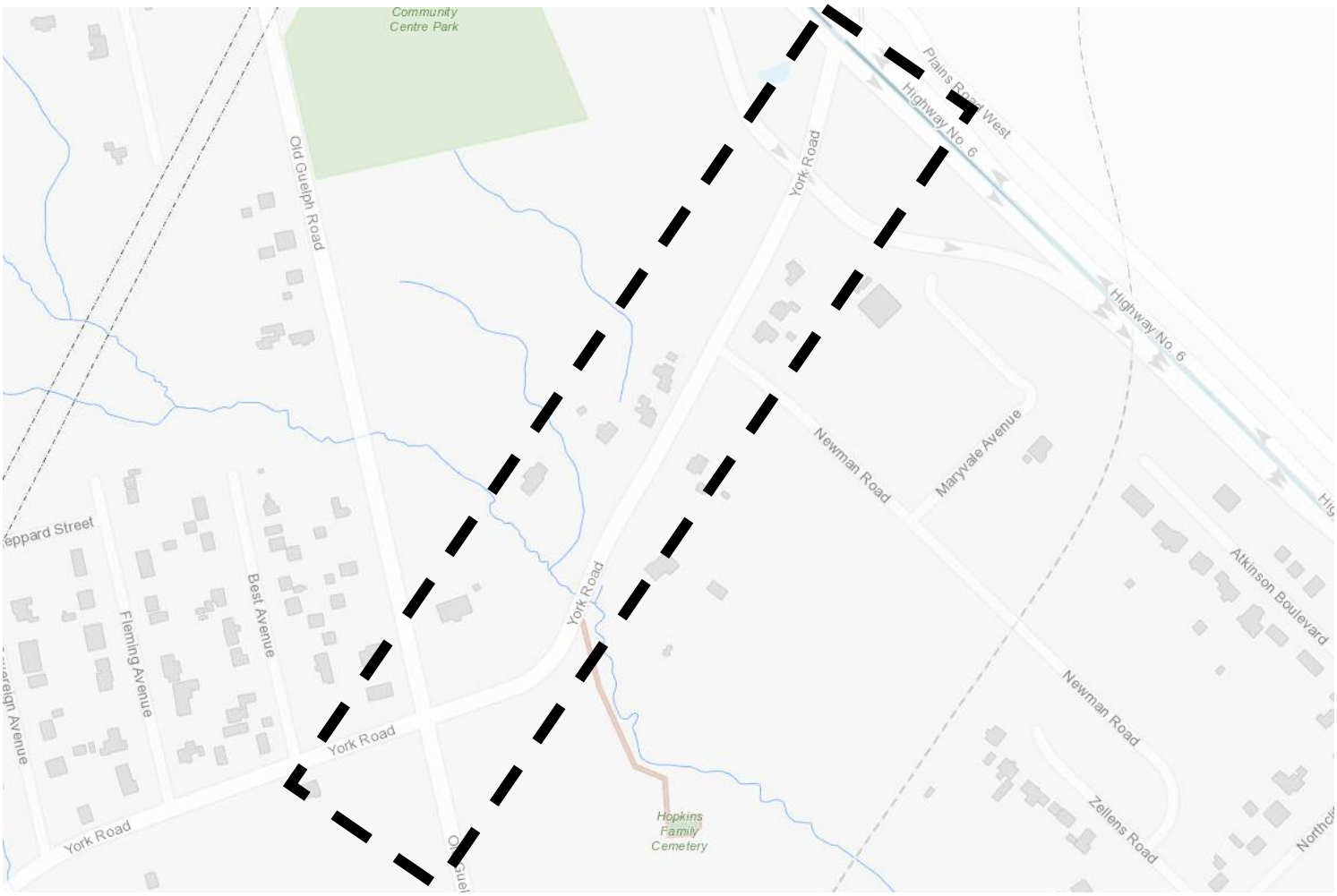
Healthy and Safe Communities

Hamilton is a safe and supportive city where people are active, healthy, and have a high quality of life.

APPENDICES AND SCHEDULES ATTACHED

Appendix “A” to Report PW20071/PED20196 – York Road and Newman Road Area Map

York and Newman Road Area Map



CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Hamilton Water Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	November 16, 2020
SUBJECT/REPORT NO:	City of Hamilton Watermain Fire Flow Requirement Design Guidelines Policy (PW19096(a)) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Udo Ehrenberg (905) 546-2424 Ext. 2499
SUBMITTED BY: **SIGNATURE:**	Mark Bainbridge Director, Water and Wastewater Planning and Capital Public Works Department 

RECOMMENDATION(S)

That the City of Hamilton Watermain Fire Flow Requirement Design Guidelines Policy attached as Appendix “A” to Report PW19096(a) be approved.

EXECUTIVE SUMMARY

On November 18, 2019 the Public Works Committee considered the City of Hamilton (City) Watermain Fire Flow Requirement Design Guidelines Policy (PW19096). The report was amended to approve the Policy for a period of 10 months to allow for further consultation with the Hamilton-Halton Homebuilders’ Association (HHHBA).

The 10-month period of implementation has been completed, and through a tracking database, staff have monitored the progress of the new policy related to development application submissions since December 2019. It was concluded that the overall benefit to development applications approvals was positive.

Engagement with HHHBA (recently renamed as West End Home Builders Association (WEHBA)) was completed through interactions with its' members on individual submissions, via the Development Industry Liaison Group (DILG) meetings, and at a dedicated workshop with WEHBA representatives. There is general agreement that the policy is beneficial as it is a simpler, and streamlines the approval process for the development community and staff resulting in:

- faster approvals;
- less mistakes in reports with fewer resubmissions; and,
- maintains adequate water service to customers.

With the above in mind, the recommendation to approve the policy permanently is being made through this report.

Alternatives for Consideration – See Page 5

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: NA
Staffing: NA
Legal: NA

HISTORICAL BACKGROUND

Prior to November 2019, the City's development community and stakeholders had expressed concern and raised a number of issues regarding implementation of the approach for fire flow design requirements, which were previously based on the Fire Underwriters Survey (FUS) guidelines methodology for fire flow calculations. In response to these concerns, Hamilton Water staff led the review and development of an enhanced policy which was presented to Public Works Committee in November 2019.

Council approved the recommendation to implement the City's Watermain Fire Flow Requirement Design Guidelines Policy for a period of 10 months to allow for further consultation with the HHHBA.

The new policy has been utilized since December 2019. Staff have maintained a tracking database to monitor the effectiveness of the new policy. A statistical analysis of the records and information in the database was conducted to understand its' effectiveness. The results of the analysis are discussed in the Analysis and Rationale section below.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

Policies and by-laws that may require updating as a result of the recommendations of this report include:

- City's Comprehensive Development Guidelines and Financial Policies, 2018
- City's Adequate Services By-Law

Legislation requirements to which the recommendations of this report align include:

- *Safe Drinking Water Act, 2002*
- *Ontario Building Code and Building Code Act, 1992*
- *Fire Protection and Prevention Act, 1997*

RELEVANT CONSULTATION

Staff conducted several meetings which included staff from Planning and Economic Development and Public Works. Consultation with the WEHBA was completed through interactions with its' members on individual submissions, via DILG meetings in February and September 2020, and at a dedicated workshop on August 26, 2020 with WEHBA representatives.

ANALYSIS AND RATIONALE FOR RECOMMENDATION

On August 26, 2020, a workshop was held with the WEBHA representatives to review the analysis of the data resulting from implementation of the new policy and to receive feedback. At the workshop, the representatives of the WEHBA indicated their encouragement and support of the data analysis findings. In summary, the new policy resulted in a streamlined approval process; faster approvals, a simpler process to follow for the development community and staff; less mistakes in reports with fewer resubmissions; and maintained adequate water service to customers.

The analysis of the data since December 2019 included 87 individual applications that were subjected to the condition of submitting fire flow calculations. There were 38 active applications prior to November 18, 2019, and as a result these were subject to the old fire flow policy once they reached that step in the process. However, eight (8) of the 38 elected to utilize the Transition Methodology and have their applications switched to a review under the new policy. This left 30 subjects to the old policy and 57 following the new policy. The analysis undertaken provided the following conclusions:

- Of the 30 applications under the old policy, 25 were satisfactory with five requiring additional refinement/resubmission pending final review which is typical regardless of old or new policy;

- Of the eight applications that electively transitioned to the new policy, six were satisfactory with two requiring additional refinement/resubmission pending final review which is typical regardless of old or new policy;
- Of the 49 applications started under the new policy (PW19096), 27 were satisfactory with 22 requiring additional refinement/resubmission pending final review which is typical regardless of old or new policy;
- There were shorter overall durations required to demonstrate adequate fire flow services relative to the 10-year history of the old policy. The average time to achieve overall final approval was 25 days, and the average time to review an individual submission regardless of iteration number (first submission, last submission, or in between) was 8.5 days;
- Under the new policy it was rare to see incorrect/inadequate calculations as there are less opportunities for error due to lower complexity;
- There were less resubmissions than the past 10-year history of the old policy; and,
- Applications reviewed were either satisfactory or required additional refinement/resubmission pending final review, however none were denied.

Additional feedback from WEHBA including the following three items:

- Issues regarding National Fire Protection Association (NFPA 13) Sprinkler Flow methodology and proposing a credit for this within the new policy;
- Concern over cases where the new policy cannot be satisfied; and,
- Small industrial applications were identified and discussed.

With respect to inclusion of the existing NFPA13 Sprinkler Flow calculation methodology in the policy, it was explained that it was considered in the development of the new policy and remains an element of the Ontario Building Code (OBC) for buildings with sprinklers. However, the new policy was focused on providing a drinking water system robust enough to meet both the OBC and land use based target thresholds for fire protection, not lower values based on sprinkler needs. No changes to the policy were made at this time.

Further to this where the new policy threshold cannot be satisfied which is expected to be rare, the City is willing to review and discuss exceptional cases in further detail and work with the development community for mutually beneficial solutions.

With regard to concerns raised with the servicing of small industrial applications, it was clarified that a specific provision is included in the policy with a lower threshold for such scenarios.

Minutes of the August 26, 2020 Workshop with WEHBA representatives and the related PowerPoint slide deck are included as Appendix "B" to Report PW19096(a) - Fire Flow Policy Review and Update with West End Homebuilders Association.

The above results are the basis for the recommendation to make permanent the policy of PW19096 and subsequent PW19096(a).

ALTERNATIVES FOR CONSIDERATION

Should Council elect not to implement the City's Watermain Fire Flow Requirement Design Guidelines Policy herein, the default is to return to the old policy. The old policy would not address the development community and stakeholders' concerns and issues regarding the former approach for fire flow design requirements.

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Community Engagement and Participation
Hamilton has an open, transparent and accessible approach to City government that engages with and empowers all citizens to be involved in their community.

Economic Prosperity and Growth
Hamilton has a prosperous and diverse local economy where people have opportunities to grow and develop.

Healthy and Safe Communities
Hamilton is a safe and supportive City where people are active, healthy, and have a high quality of life.

Our People and Performance
Hamiltonians have a high level of trust and confidence in their City government.

APPENDICES AND SCHEDULES ATTACHED

Appendix "A" to Report PW19096(a) - City of Hamilton Watermain Fire Flow Requirement Design Guidelines Policy Summary Table.

Appendix "B" to Report PW19096(a) - Fire Flow Policy Review and Update with West End Homebuilders Group.

Table 1 - City of Hamilton Watermain Fire Flow Requirement Design Guidelines Policy Table

Policy No.	Policy Area	Policy Statement	Best Practices and Criteria
2019-FF-1	Development Application Approach	“The City of Hamilton endeavours through this policy, to provide a water distribution network with a system Available Fire Flow (AFF – water available for fighting a fire) that meets the greater of the Required Fire Flow calculated using the Ontario Building Code (OBC) water supply flow rate method or the City’s Target AFF based on land use. Developers shall be responsible for providing the system AFF appropriate for the development being proposed.”	• Shorter approvals times with fewer submissions • Potential reduced construction, maintenance and replacement costs • Clarity and consistency in the calculations approach • Reasonable sizing of local watermains • Aligns with established Ontario Building Code-OBC practice
2019-FF-1a	Development Application Approach	“Developers are required to meet OBC standards for building construction. No credits will be considered for reducing required fire flow outside of any provisions contained within the *Ontario Building Code Act* or regulations under the *Act.”*	
2019-FF-1b	Development Application Approach	“OBC required fire flow calculations will be required as part of any development application submission. The required fire flow will be determined using the OBC water supply flow rate method (OBC section A-3.2.5.7). This methodology will be applied to all buildings falling under Part 3 and Part 9 of the Building Code (OBC sections 1.1.2.2 and 1.1.2.4). “	
2019-FF-1c	Development Application Approach	“System available fire flow calculations will be required as part of a development application submission and will be based on field testing and/or hydraulic modelling (as directed by the City). System available fire flow shall meet or exceed the greater of OBC required fire flow or the target AFF for the land use being proposed. For mixed use developments the target available fire flow	

Table 1 - City of Hamilton Watermain Fire Flow Requirement Design Guidelines Policy Table

Policy No.	Policy Area	Policy Statement	Best Practices and Criteria
		will be based on the proposed land-use with the highest target available fire flow. The target available fire flow will be as defined in Table 1: Target AFF” Table 1: Target AFF Land Use — Target AFF (L/s) Commercial — 150 Small ICI (<1,800 m3)[1] — 100 Industrial — 250 Institutional — 150 Residential Multi[2] — 150 Residential Medium (3 or less units)[3] — 125 Residential Single — 75 Residential Single (Dead End) — 50 1 1800m3 represents a maximum building volume that qualifies as “Small ICI” 2Residential Multi is defined as a residential dwelling with > 3 units 3Residential Medium is defined as a residential dwelling with ≤ 3 units	
2019-FF-1d	Development Application Approach	“System upgrades required to achieve the greater of the OBC required fire flow or the target available fire flow (Table 1) will be the responsibility of the developer subject	

Table 1 - City of Hamilton Watermain Fire Flow Requirement Design Guidelines Policy Table

Policy No.	Policy Area	Policy Statement	Best Practices and Criteria
		to local servicing policy and subject to the City’s state of good repair program.”	
2019-FF-2	Master Plan Approach	“The City of Hamilton will establish acceptable trunk infrastructure levels of service for fire flow and storage through consideration of land use and the Ministry of Environment, Conservation and Parks Design Guidelines”.	• Robust and reliable trunk network and infrastructure from which local sub-networks are serviced • Offers flexibility in growth options and GRIDS2 growth strategies
2019-FF-2a	Master Plan Approach	“The City’s Master Plan process will continue to establish system level of service for fire flow (trunk system and facilities)”.	
2019-FF-2b	Master Plan Approach	“The City’s Master Plan process, which will be based on Growth Related Integrated Development Strategy (GRIDS2) and the City’s Official Plan, will proactively develop intensification programs that will identify development related upgrades that can address both growth and fire flow deficiencies”.	
2019-FF-3	State of Good Repair Approach	“The City will be setting minimum available fire flow targets based on the recommendations of this study. The City will upgrade watermains to achieve target available fire flows, where practically feasible, through its ongoing state of good repair program“.	
2019-FF-4	Conformity with Legislation	As required this policy will be reviewed and amended to align with changes in related legislation.	

City of Hamilton, Public Works Department
Hamilton Water
Meeting Minutes

Project: City of Hamilton W/WW & SW Master Plan Development Application Support		Project No.: 717010 420108
Meeting: Fire Flow Policy Review and Update with West End Homebuilders Group		
Date: August 26, 2020		Time: 1:00 pm –3:00 pm
Location: WebEx		
Attendees:		
City of Hamilton Udo Ehrenberg Mark Bainbridge Jorge Caetano Bert Posedowski	City of Hamilton Tony Sergi Binu Korah Sally Yong-Lee Zivko Panovski Gavin Norman	GM BluePlan Sarah Primmer Mark Zamojc WEHBA Suzanne Mammel Steven Frankovich

Meeting Summary

- The new Fire Flow Policy for development applications was approved by Council Public Works Committee for use as a pilot in November 2019. Since that time, the City and GM BluePlan have been collecting data on development applications as it relates to review time and successful approval of Fire Flow calculations
- GM BluePlan presented approval stats dating back to late 2019 related to fire flow calculations and development application approval. (PowerPoint slide were circulated by email on Aug 28, 2020)
- In general, review times have been shortened. It is assumed that the simpler fire flow calculation process has resulted in fewer calculation errors, and more efficient review.
- Based on the data processed to date, it also appears that fewer submission iterations have been required to reach approval under the new Fire Flow Policy.
- GM BluePlan discussed how NFPA was considered in development of new Fire Flow Policy and Fire Flow Targets.

Discussion Items

- **Question**: Hydrant Testing – has hydrant test data been updated and will new data be provided to development community?
  - **Answer**: Ongoing hydrant testing is completed by the City and the hydrant test database is continually updated. Test results for hydrants adjacent to development properties is available to the development community. This can be accessed by emailing Udo.

BluePlan ENGINEERING

Development Application Support
Fire Flow Policy Meeting-WEHBA
August 26, 2020

- **Question**: Is there 'hotspot' mapping for areas of low available fire flow
  - **Answer**: No formal mapping is currently available for distribution, but could potentially be prepared and provided in future.
- **Question**: Are there any industrial areas that have issues with meeting 250 L/s?
  - **Answer**: There are some areas that the City is aware of currently and further areas may also be identified as part of the Master Plan. Areas that cannot meet the target fire flow will be reviewed at the trunk Master Plan level to determine if City actions in pumping, storage or trunk watermain upgrades or operational changes can improve these known areas.
  - In the recent review period (Nov 2019 onward), there are no industrial applications that have not had adequate available Fire Flow.
  - "Small ICI" category was added with Target FF of 100L/s to address some smaller employment areas, typically within downtown core
- **NFPA Discussion** – NFPA sprinkler needs were considered, however are not currently part of the policy and no 'sprinkler credit' is provided within policy
- **Question**: if system meets NFPA sprinkler flow needs, but doesn't meet target or the OBC Volumetric Calculation, how will the City handle this case?
  - **Answer**: this would be a rare case that, if occurred, the City would have to review in further detail. But in general, the City is responsible for *system* fire flow at the street/hydrant. the City wants to provide a system robust enough to meet the OBC and Targets, not lower values based on sprinkler needs
- **Question**: what about small industrial areas in parts of the City that don't have 250 L/s?
  - **Answer**: "Small ICI" category was added with Target FF of 100L/s to address some smaller employment areas. Developments that may still be problematic because they are slightly larger than the "Small ICI" volume may be reviewed on a case by base basis.
- **Question**: is there a way to incorporate sprinkler calculations within policy?
  - **Answer**: No plans to update the policy to include considerations for sprinklers, however, the City is willing to review exceptional cases in further detail and work with development community for mutually beneficial solutions.
- **Question**: now that the pilot review period has ended, does the City intend on continuing with updated Fire Flow Policy?
  - **Answer**: Yes, the current plan is to continue with no modifications or updates to the policy
- Request from WEHBA that the City looks at 'hot spots' of low AFF such as within industrial areas or in downtown core to ensure policy is still applicable and reasonable within these areas.
- Request from City that WEHBA review fire flow needs within the private property and private infrastructure in dense low level condo sites and ensure

adequate watermain sizes and pressures throughout larger condo development blocks. This topic to be added to a future DILG agenda.
Next Steps: • City continue with updated Fire Flow Policy • City continue to monitor development application statistics • Continue open discussion and dialogue with Home Builder's associations as required

These minutes have been prepared by the undersigned. If there are any errors or omissions in these minutes, please contact the author as soon as possible.

GM BLUEPLAN ENGINEERING LIMITED

Hamilton Fire Flow Policy Pilot (PW19096)
West End Home Buildings Association – Feedback Meeting

August 24, 2020

1:00 – 3:00pm

AGENDA

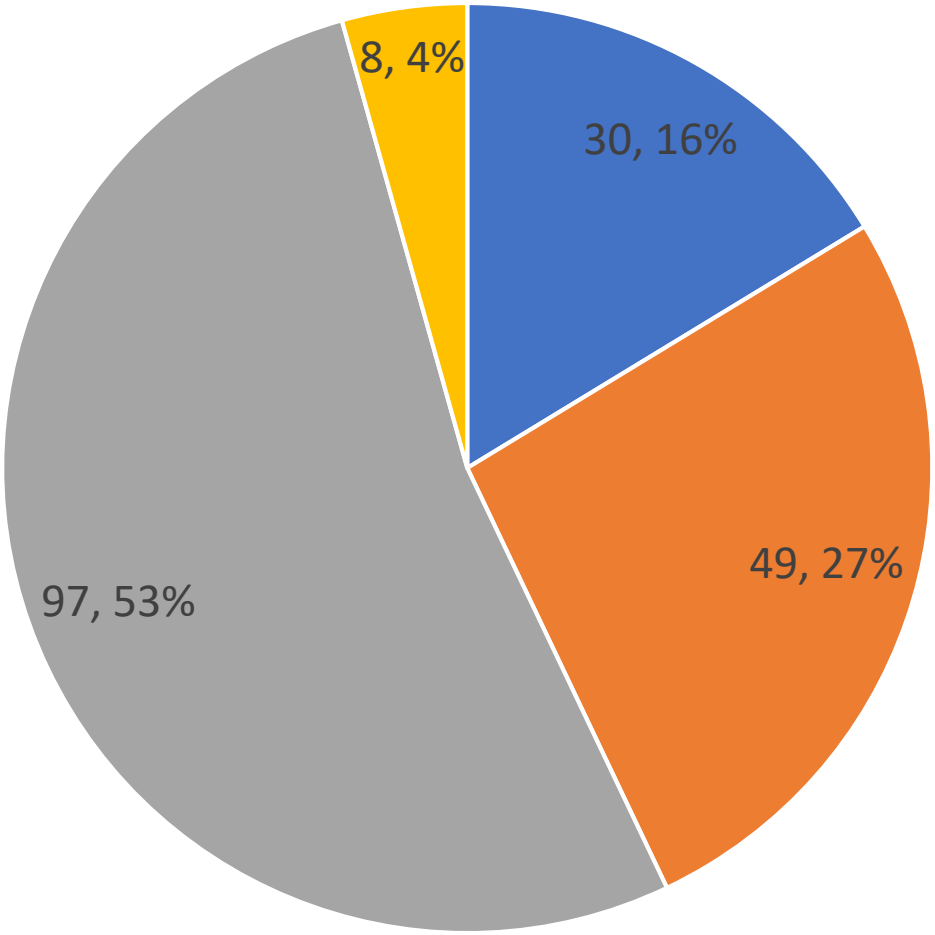
1. Background – City
   - Statistics to date – City/GMBP
2. Home Builders Feedback – WEHBA
3. NFPA 13
   - Current Policy History – GMBP
   - Ideas for Policy Enhancement – WEHBA
4. Next Steps

City of Hamilton
New Fire Flow Policy Pilot (PW19096)

Summary of Development Applications Requiring Water Servicing Review

December 31, 2019 to August 21, 2020

Number and Type of Unique Applications Reviewed



- Old Policy
- New Policy
- FC/DRT/POST/No Calculations
- Transition to New Policy

Notes:

1. Some applications had multiple submissions reviewed during this time period, however this chart counts each application only once.
2. Submissions provided for Formal Consultation (FC), Development Review Team (DRT) and Plan of Subdivision Team (POST) meetings do not typically contain calculations and comments provided for these meetings usually outline expectations for future submissions. Also included in this category on the chart is applications for which calculations are required but were not submitted during the time period. We will expect to receive calculations for most or all of this category of applications in the future.

Applications Reviewed Under the Old Fire Flow Policy

- Applications reviewed under the Old Fire Flow Policy during the pilot period had previously submitted Fire Underwriter's Survey (FUS) method required fire flow (RFF) calculations prior to the adoption of the new policy by Council on November 27, 2019.
- All of these applications were therefore a second (or higher) submission.
- Of the **30** unique applications reviewed under the old fire flow policy during the pilot period:
  - **25** were approved
  - **5** ongoing but have not been approved to date

Reason for Non-Approval (to date)	Number of Applications
Inadequate capacity (additional hydrant testing or Watermain Hydraulic Analysis required as next step)	2
Form 1 required for new watermain	1
Incorrect FUS calculations	1
Application is going To LPAT for reasons unrelated to water servicing	1

Applications Reviewed as a Transition to the New Fire Flow Policy

- Applications reviewed as a transition to the New Fire Flow Policy during the pilot period had previously submitted FUS method RFF calculations prior to the adoption of the new policy by Council on November 27, 2019, and subsequently requested to transition to the new fire flow policy, paying additional review fees as required.
- Of the **8** unique applications reviewed as a transition to the new fire flow policy during the pilot period:
  - **6** were approved
  - **2** ongoing but have not been approved to date

Reason for Non-Approval (to date)	Number of Applications
Updated Servicing Plan required.	1
Form 1 required for new watermain	1

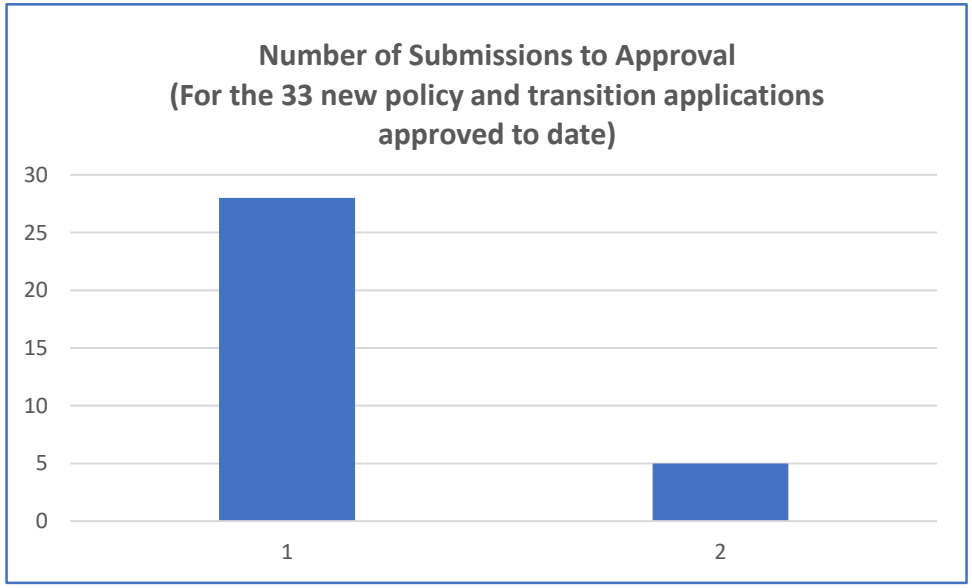
Applications Reviewed Under the New Fire Flow Policy

- Applications reviewed under the New Fire Flow Policy had not previously submitted RFF calculations prior to November 27, 2019.
- Of the **49** unique applications reviewed under the new fire flow policy during the pilot period:
  - **27** were approved
  - **22** ongoing but have not been approved to date

Reason for Non-Approval (to date)	Number of Applications
Inadequate capacity - additional hydrant testing or Watermain Hydraulic Analysis (WHA) required as next step	9
Submitted FUS Calculations	6
Form 1 required for new watermain	2
Hydrant testing data required	2
Incorrect or inadequate OBC calculations	1
Inadequate servicing plan	1
Domestic/process calculations required	1

New Fire Flow Policy – Time to Approval

- From the date of first submission of Ontario Building Code (OBC) RFF calculations to date of approval of water servicing, for applications reviewed under the new fire flow policy (of the 33 new and transition applications approved to date):
  - Minimum time to approval – 7 days
  - Maximum time to approval – 129 days (includes time for applicant to prepare a second submission)
  - Average time to approval – 25 days

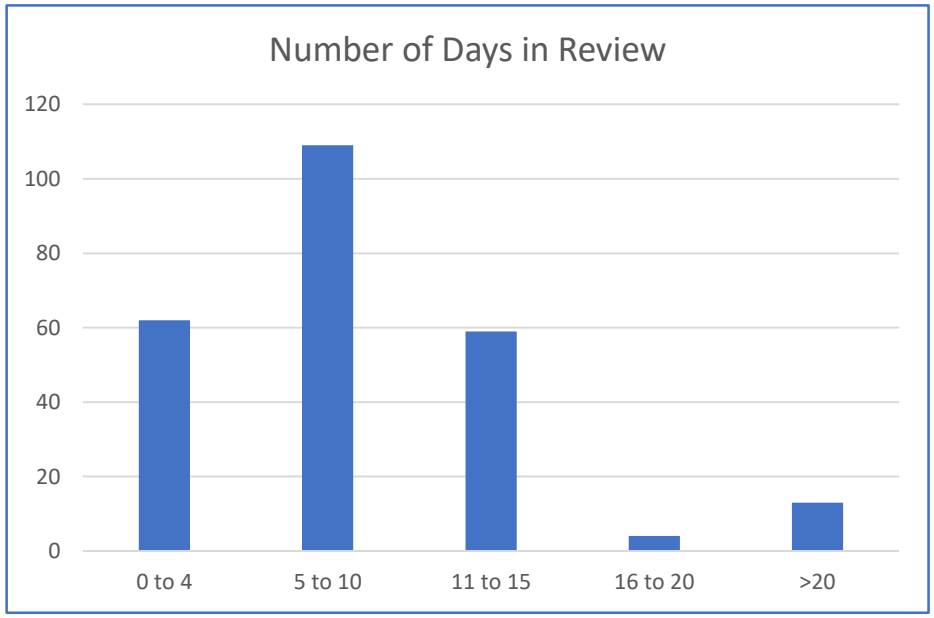


Notes:

1. The review timelines outlined on this slide are for site plan approval/amendment applications and zoning/official plan amendment applications. Draft Plan of Subdivision applications and External Works Agreements typically require Form 1 approval, which increases the length of the review period.

New Fire Flow Policy - Review Timelines

- From the date of Hamilton Water Receives the circulation to the date Hamilton Water circulates comments:
  - Minimum time – 0 days (i.e. comments given the same day)
  - Maximum time– 32 days
  - Average time to comment – 8.5 days



Notes:

1. The review timelines outlined on this slide are for site plan approval/amendment applications and zoning/official plan amendment applications. Draft Plan of Subdivision applications and External Works Agreements typically require Form 1 approval, which increases the length of the review period.

General Observations

- We rarely see incorrect/inadequate calculations under the new fire flow policy. There are less places for calculation errors to occur using the OBC RFF method compared to the FUS RFF method.
- It is easier to quickly identify if there will be a watermain capacity issue for an application under the new fire flow policy.

General Observations- continued

- The fillable PDF form appears to be helpful for applicants and engineers who are less familiar with City of Hamilton requirements and policies, as it guides them through the process and ensures that we receive the information we need.
- We have experienced some issues with the wrong fire flow policy being used for submissions during the pilot period. As time passes, we are seeing most applicants following the correct approach. We have also refined our approach to determining which fire flow policy applies, and have put in place a procedure for applicants to transition from the old policy to the new policy if desired.

Home Builders Feedback – WEHBA

NFPA 13 – Current Policy History

- During the development of the Fire Flow Policy, NFPA 13 was reviewed to determine typical sprinkler requirements for different types of development.
- NFPA 13 sprinkler calculations are not reviewed as part of development applications.
- As such, the main purpose of the NFPA 13 review was to ensure that the fire flow targets developed were sufficient to meet typical sprinkler demands.

NFPA 13
Ideas for Policy Enhancement – WEHBA

CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Transit Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	November 16, 2020
SUBJECT/REPORT NO:	Universal Concession Fare Policy (PW20069) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Nancy Purser (905) 546-2424 Ext. 1876
SUBMITTED BY: **SIGNATURE:**	Debbie Dalle Vedove Director, Transit Public Works Department 

RECOMMENDATION(S)

(a) That effective January 1, 2021, Hamilton Street Railway (HSR) fare policy be changed to reflect:

(i) children five (5) years of age and under ride public transit for free;

(ii) youth thirteen (13) to nineteen (19) years of age ride public transit at a discounted Youth rate when they show proof of age at boarding either with student identification or government-issued identification; and,

(iii) the discounted Summer Youth 2 for 1 pass be removed.

EXECUTIVE SUMMARY

The purpose of this report is to seek Council approval to update Hamilton Street Railway (HSR) fare policy; where the name “Student” is changed to “Youth” and the requirement to be attending school is removed and where Children four (4) and under are permitted to ride free is increased to Children five (5) and under.

In 2006 as part of the original PRESTO design, one of the deliverables was to allow for seamless travel throughout the Greater Toronto Hamilton Area (GTHA). To enable that, Universal Concession categories; Adult (default fare), Child (6 to 12), Student (13 to

19), Senior (65+), were created and implemented. Recognizing that there needed to be flexibility, transit agencies were also able to create concessions specific to their agency, such as the Golden Age (80+) used in Hamilton.

Metrolinx has been leading the work to develop a fare integration strategy for the GTHA since 2013. While all transit agencies offer each of the universal concessions as set up in PRESTO, the underlying policy to determine eligibility differs between transit agencies. The transit agencies have reviewed the various policies and committed to bringing recommendations forward to their respective councils where appropriate by the end of 2020. This will allow customers to have the same experience on each system. Staff has reviewed and identified that Hamilton has two policies that are impacted.

Currently, the Council approved policy regarding pre-school children allows children four (4) years of age and under to travel for free. All other transit agencies in the GTHA have transitioned to set the age at five (5) years of age. An analysis prepared by staff has determined that the implications of moving the pre-school age from age four (4) to five (5) is negligible and will not negatively impact transit revenues.

The Council approved policy for students, requires that students ages thirteen (13) to nineteen (19) must show proof of enrolment in elementary/secondary school via appropriate student identification to be eligible to receive a reduced fare. Under this policy, once a student is no longer attending school, they will then be required to pay an adult fare. The updated policy is a name change from “Student” to “Youth and removes the requirement to be attending an elementary/secondary school and will now be strictly age-based. Proof of eligibility will be determined either with student or government-issued identification. This policy has been implemented by most transit agencies in the GTHA; with Hamilton, York and, GO Transit targeting to implement by the end of 2020. The analysis detailed in the financial section of this report indicates that the impact of this change may reduce revenues by $62,900. Another Council approved fare policy offers a Summer Youth 2 for 1 pass, recognizing that students still need to travel during July and August but at a reduced frequency. With the requirement of being enrolled in school removed from this concession, this pass is no longer relevant and staff analysis shows there is potential to generate additional revenue of $40,500. This policy change could lead to increased transit usage since it will provide youth who are no longer attending school a reduced rate making transit a more affordable option

Adjusting the current policy for pre-school children to five (5) years of age and younger to ride free and making the change from student to youth, will provide the same experience to customers throughout the GTHA and create greater harmonization. Harmonization is the building block for fare integration, which has been identified as a priority by MTO in the safe restart agreement.

Alternatives for Consideration – N/A

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: To estimate the impact of changing the policy for students thirteen (13) to nineteen (19) years of age to youth thirteen (13) to nineteen (19) years of age without the requirement to attend elementary/secondary school the following assumptions were made:

The 2016 Census Data, which is the most recent data available, was the basis for the analysis. Using the age group fifteen (15) to nineteen (19) which totals 32,130, we then assume that each age is equally represented meaning that there are 6,426 nineteen (19) year olds in Hamilton. We then further assume that 50% of the nineteen (19) year olds attend college or university and have access to a reduced fare pass (U Pass); leaving 3,213 who could choose transit as a transportation option for their daily activities. Transit currently has a 7% modal split, therefore we assume 224 nineteen (19) year olds will use transit. Based on 2019 ridership data this group averaged 12 trips a week or 624 trips annually for a total trip count of 139,779. The price differential between an Adult single ride and Youth single ride is $0.45 which equates to a revenue loss of $62,900.

The removal of the Summer Youth 2 for 1 Pass could improve revenue should everyone who purchased it continue to do so in the future, as there is a requirement to purchase passes for both July and August at the full monthly pass rate, currently set at $90.20. In 2019, 449 passes were sold which totals $40,500 in revenue.

The net revenue loss from the two policy changes is $20,400.

Staffing: N/A

Legal: N/A

HISTORICAL BACKGROUND

As part of the original PRESTO design, it was determined that Universal Concessions categories; Adult, Child (6 to 12), Student (13 to 19), Senior (65+), would be created and recognized by every participating Transit Agency to provide seamless travel within the GTHA. Transit agencies are also able to create concessions specific to their agency as required, such as Hamilton’s Golden Age (80+).

Metrolinx has been leading the work to develop a fare integration strategy for the GTHA since 2013. While all transit agencies offer each of the universal concessions as set up in PRESTO, the underlying policy to determine eligibility differs between transit agencies.

The GTHA transit agencies meet regularly to discuss common issues. Fare harmonization has been discussed and all transit agencies agreed to bring

recommendations forward to their respective councils where appropriate by the end of 2020 to align policies. All GTHA transit agencies are working towards implementing the following fare policies concerning concession fares:

Children 0 – 5 - ride free
Children 6 – 12 - ride at a discounted rate with no proof of age required
Youth 13 – 19 - ride at a discounted rate with proof of age with either student or government-issued ID
Senior 65+ - ride at a discounted rate with government-issued proof of age ID

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

Transit fare policies

RELEVANT CONSULTATION

N/A

ANALYSIS AND RATIONALE FOR RECOMMENDATION(S)

Staff compared the policies that would achieve fare harmonization to those approved by Council and found that two policies require updating: pre-school children and students.

Councils' approved policy allows children four (4) years of age and younger to travel for free. Staff's analysis has determined that the implication of adjusting the age range of free fares to include five (5) year olds to match the policy that has been adopted by all other GTHA transit agencies and have found that the impact to revenue would be negligible. At present, it is difficult to determine how many children aged five (5) are riding on the HSR and it is likely many are already boarding for free.

The current Council approved policy for students, requires that students ages thirteen (13) to nineteen (19) with proof of enrolment in elementary/secondary school will be eligible to receive a reduced fare with appropriate student identification. Under this policy, once enrolment can no longer be validated, the individual will then be required to pay an adult fare. The updated policy is a name change from "Student" to "Youth" and removes the requirement to be attending an elementary/secondary school and will now be strictly age-based. Proof of eligibility will be determined either with student or government-issued identification. This policy has been implemented by most transit agencies in the GTHA; with Hamilton, York and, GO Transit targeting to implement by the end of 2020. In general, most students complete high school by the age of eighteen (18). A portion of those who graduate at eighteen (18) would then go on to post-secondary learning where in some cases a discounted transit pass is provided. It is estimated that for those individuals who do not go on to University or College, 7% of that population would utilize public transit on a limited basis. The impact on revenue allowing this group to continue to pay the reduced rate instead of the adult fare is a

reduction of $62,900 based on 2019 data. It is anticipated that this change in policy may attract more young riders as the fare is now more affordable.

Council also approved a discounted summer youth pass allowing the customer to purchase two months for the price of one month recognizing that students would still require to access transit but at a much less frequency during July and August. With the recommendation to move away from the requirement to be a student to receive a reduced fare, this pass is no longer relevant. Removing this has the potential to increase revenue by $40,500 should the customers continue to purchase monthly passes as purchased in 2019. No other transit agency in the GTHA offers this type of product. The net effect of these changes are an estimated reduction in revenue of $20,400.

Adjusting the current policy to five (5) years and younger ride free and making the change from student to youth, will provide the same experience to customers throughout the GTHA and create greater harmonization.

ALTERNATIVES FOR CONSIDERATION

N/A

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Healthy and Safe Communities
Hamilton is a safe and supportive City where people are active, healthy, and have a high quality of life.

Clean and Green
Hamilton is environmentally sustainable with a healthy balance of natural and urban spaces.

APPENDICES AND SCHEDULES ATTACHED

None

CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Transit Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	November 16, 2020
SUBJECT/REPORT NO:	Cross-boundary Connection with Niagara Regional Transit On-Demand Transit Pilot (PW20070) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Jason VanderHeide (905) 546-2424 Ext. 2390
SUBMITTED BY: **SIGNATURE:**	Debbie Dalle Vedove Director, Transit Public Works Department 

RECOMMENDATION

(a) That Niagara Regional Transit (NRT) be permitted to operate within the City of Hamilton's municipal boundary to provide a cross-boundary transit connection at Winona Crossing (Fifty Road and South Service Road); and,

(b) That the General Manager of Public Works be authorized and directed to negotiate and execute an agreement with Niagara Region, to the satisfaction of the City Solicitor, with respect to the terms upon which public bus transportation shall be furnished by the adjoining municipality within our municipality, pursuant to the *Municipal Act, 2001*.

EXECUTIVE SUMMARY

Under the Municipal Act, municipalities have the authority to establish, operate and maintain a type of passenger transportation system within their own municipal boundaries and may provide a service in an area in another municipality upon consent of the neighbouring municipality.

The purpose of this report is to obtain Council approval to permit Niagara Regional Transit (NRT) to operate their recently introduced pilot on-demand transit service within the municipal boundary of the City of Hamilton, to a singular drop off and pickup location, allowing NRT to provide residents of Niagara Region an opportunity to access shopping and employment at Winona Crossing and to connect to destinations within our municipality through transit services provided by the City of Hamilton.

Alternatives for Consideration – See Page 6

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: N/A

Staffing: N/A

Legal: Legal Services will be engaged in assisting with drafting, negotiating, and executing the cross-boundary service agreement between the City of Hamilton and Niagara Region.

HISTORICAL BACKGROUND

On August 6, 2020 staff from Hamilton's Transit Division met with NRT staff, at the request of NRT. The discussion centred around the possibility of NRT being permitted to operate a soon to be launched pilot on-demand transit service within the municipal boundary of the City of Hamilton.

The requested cross-boundary connection, targeted for implementation between Thanksgiving and Christmas, would be an expansion to the planned pilot and would facilitate providing Niagara residents access to shopping and employment at Winona Crossing in addition to connecting the new service to the transit services already provided by the City of Hamilton at the same location.

During the meeting NRT staff advised that prior to the launch of the pilot on-demand service, residents in Niagara Region's Town of Grimsby and West Lincoln did not have access to local transit services, and during presentations to Niagara Committee and Council, as well as in subsequent public consultations, the concept of a connection to the City of Hamilton at Winona Crossing was discussed and was widely supported.

On August 17, 2020 NRT launched the new pilot on-demand transit service, which uses an app-based booking platform, and operates Monday to Saturday from 7:00 am to 10:00 pm. The pilot is slated to operate for a one-year period with NRT providing updates to their respective Council in November 2020, and January 2021. During the January update, NRT will provide an assessment of the successfulness of the pilot as

well as a recommendation to either end or extend the pilot at the end of the one-year period.
In August and September 2020, staff from Hamilton's Transit Division worked with colleagues in the Licensing and Legal Divisions to ensure that the requested cross-boundary connection could be accommodated pending licensing and insurance for the on-demand service provider, Council approval, and a satisfactory agreement between neighbouring municipalities.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

Municipal Act – Geographic Application

Limited to municipal boundaries

19. (1) By-law and resolutions of a municipality apply only within its boundaries, except as provided in subsection (2) or in any other provisions of this or any other Act.

Exception, services

(2) A municipality may exercise its power, other than its power to impose taxes, to provide a municipal system to provide a service or thing in an area in another municipality or in unorganized territory if one of the purposes for so acting is for its own purposes and if one of the following conditions applies;

1. The service or thing is provided to inhabitants of the municipality providing the service or thing.

2. The other municipality is a single-tier municipality and the service or thing is provided with its consent.

3. The other municipality is a lower-tier municipality and the service or thing is provided with consent of,

    i. the lower-tier municipality, if it has jurisdiction to provide the service or thing in the area,

    ii. its upper-tier municipality, if it has that jurisdiction, or

    iii. both the lower-tier municipality and its lower-tier municipality, if they both have jurisdiction.

4. The service or thing is provided in an unorganized territory,

i. with the consent of a local body that has jurisdiction to provide the service or thing in the area, or

ii. with the consent of the person who receives the service or thing, if no local body has jurisdiction.

Terms

(3) A consent under subsection (2) may be given subject to such conditions and limits on the powers to which the consent relates as may be agreed upon.

Municipal Act – Transportation - Passenger transportation systems

69 (1) This section applies to passenger transportation systems other than the following:

1. Vehicles and marine vessels used in sightseeing tours.

2. Vehicles exclusively chartered to transport a group of persons for a specific trip within the municipality for compensation.

3. Buses used to transport pupils, including buses owned and operated by, or operated under a contract with, a school board, private school or charitable organization.

4. Buses owned and operated by a corporation or organization solely for its own purposes without compensation for transportation.

5. Taxicabs

6. Railway systems of railway companies incorporated under federal or provincial statutes.

7. Ferries.

8. Aviation systems.

(2) A municipality that has the authority to establish, operate and maintain a type of passenger transportation system may,

(a) by by-law provide that no person except the municipality shall establish, operate and maintain all or any part of a passenger transportation system of that type

within all of the municipality or that area of the municipality designated in the by-law; and,

(b) despite section 106 and any by-law under clause (a), enter into an agreement granting a person the exclusive or non-exclusive right to establish, operate or maintain all or any part of a passenger transportation system of that type within all of the municipality or that area of the municipality designated in the agreement under such conditions as the municipality provides,

RELEVANT CONSULTATION

The following City Departments/Divisions have been consulted on this report and agree with the recommendation:

- Legal and Risk Management Services, Corporate Services
- Licensing and By-law Services, Planning and Economic Development

The following external stakeholders have been consulted on this report:

- Niagara Regional Transit
- Business Licensing, Niagara Region

ANALYSIS AND RATIONALE FOR RECOMMENDATION

Granting consent for the requested cross-boundary transit connection between the City of Hamilton and Niagara Region is mutually beneficial to residents travelling by transit in both directions across the municipal borders.

The increased access to transit services in both municipalities, and the connection of neighbouring transit services provides greater opportunities for improved access to;

- Employment
- Shopping
- Education
- Interregional Transit
- Tourism and Events

Increased access to, and connection between, municipal transit services assists in supporting municipal;

- Transportation Plans
- Strategic Plans

There are no financial implications to the City of Hamilton, as the pilot on-demand service is being contracted by Niagara Region. Revenue generation and fare collection will be exclusive to each transit agency, whereby customers using Hamilton Transit services within the City of Hamilton will be required to pay regular transit fares when accessing service, and customers using Niagara Transit on-demand service while crossing between the City of Hamilton and Niagara Region will be required to pay transit fares to NRT. A singular connection location will be established to ensure that NRT trips are being made to and from Niagara Region, and not exclusively within the City of Hamilton.

Consenting to the cross-boundary transit connection provided by the NRT pilot on-demand service provider will provide staff from the Hamilton Transit Division an opportunity for greater exposure to the on-demand transit service delivery model and will assist in assessing the viability of on-demand services and the potential application of it as an option within the City of Hamilton's future transit plans.

ALTERNATIVES FOR CONSIDERATION

Do not consent to the request for cross-boundary transit.

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Economic Prosperity and Growth
Hamilton has a prosperous and diverse local economy where people have opportunities to grow and develop.

Clean and Green
Hamilton is environmentally sustainable with a healthy balance of natural and urban spaces.

Culture and Diversity
Hamilton is a thriving, vibrant place for arts, culture, and heritage where diversity and inclusivity are embraced and celebrated.

APPENDICES AND SCHEDULES ATTACHED

N/A

CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Environmental Services Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	November 16, 2020
SUBJECT/REPORT NO:	Waste Free Ontario Act - Proposed Regulation to Amend the Blue Box Program (PW20073) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Raffaella Morello (905) 546-2424 Ext. 3926
SUBMITTED BY: **SIGNATURE:**	Craig Murdoch Director, Environmental Services Public Works Department 

RECOMMENDATION

That the comments in Appendix “A” attached to Report PW20073 be forwarded to the Ontario Ministry of the Environment, Conservation and Parks (MECP) in response to Ontario’s Environmental and Regulatory Registries (ERO #019-2579) posting respecting the proposed Regulation to make producers responsible for operating Ontario’s Blue Box Program.

EXECUTIVE SUMMARY

This report provides an overview on the Ontario Government’s, “Proposed Regulation and proposed regulatory amendments to Ontario Regulation 101/94 to make producers responsible for operating Ontario’s Blue Box program” (“Regulation”). The proposed Blue Box Program regulation will transition the responsibility of the Blue Box Program from municipalities to a producer responsibility framework model which will make producers fully responsible for the cost and operation of the residential Blue Box Program across Ontario by the end of 2025.

The proposed Regulation was posted on the Ontario’s Environmental and Regulatory Registries (ERO #019-2579) on October 19, 2020 for review and public comment. Staff provided Public Works Committee with a verbal update of the proposed Regulation at

their October 19, 2020 meeting. Following this meeting, staff confirmed they would bring forward a report recommending that Council approve the comments in Appendix "A" attached to Report PW20073. Public feedback on these regulations is due to the MECP by December 3, 2020.

Alternatives for Consideration – See Page 7

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: The proposed Regulation includes the Blue Box Transition Schedule which identifies that the City's transition is scheduled to take place in 2025 which is later than the City's preferred transition date of April 1, 2023 as recommended and approved in Report PW20028.

Transitioning the Blue Box Program in 2025 will require the City to continue its financial responsibilities for operating and capital expenses to maintain the City's Blue Box Program. As seen in Table 1 the City's estimated annual recycling program costs increase annually by CPI. The City will be responsible for a portion of the program costs in 2025 until the Blue Box Program is transitioned to the producer responsibility system. If the City transitions in 2023 rather than 2025, the estimated net savings to the residents of the City could be approximately $27M depending on when, within a particular year, the transition took place.

Table 1. Blue Box Program Costs for Hamilton in 2023, 2024 and 2025 (cost in $ millions)

	2023	2024	2025
Gross estimated Blue Box Program cost	21.472	21.959	22.459
Estimated revenues	(2.000)	(2.000)	(2.000)
Anticipated RPRA funding	(6.059)	(6.470)	(6.535)
Net estimated cost to City of Hamilton	13.413	13.489	13.924

The cost estimates outlined here assume that the Resource Productivity and Recovery Authority (RPRA) continue to fund municipal recycling programs at 50% until the time of transition. To date, the MECP has not indicated if this will be the case.

Staffing: There are no staffing implications associated with the recommendation in this report.

Legal: There are no legal implications associated with the recommendation in this report.

HISTORICAL BACKGROUND

The Waste Free Ontario Act (WFOA) 2016 provides direction to move the Blue Box Program to a full producer responsibility model. Under a full producer responsibility program, producers would pay the full cost of municipal Blue Box programs instead of approximately 50% that is currently paid by producers in the form of financial grants provided to municipalities. This system would also require producers to be responsible for all aspects of the Blue Box Program including collection, processing, customer service, promotional information, and meeting waste diversion targets.

On August 15, 2019, the Ministry of the Environment, Conservation and Parks (MECP) announced Blue Box services would transition to producers in phases over a three-year period between January 1, 2023 to December 31, 2025. As part of this announcement, the MECP directed Stewardship Ontario and the RPRA to begin the transition of the Blue Box Recycling Program from municipalities to producers and begin the wind-up of the current Blue Box Program. The RPRA is required to approve the Blue Box Transition Plan by December 31, 2020.

To assist with the development of the Blue Box transition schedule, the Association of Municipalities Ontario (AMO) asked municipal Councils to pass a Council resolution by June 30, 2020 to identify their preferred transition date, rationale, and if they were interested in providing recycling services under contract with producers. AMO advised municipalities the preferred transition dates could be subject to change based on the Province's plan to ensure an orderly and seamless transition. On May 27, 2020 Hamilton City Council approved the City's preferred transition date as April 1, 2023 as outlined in Report PW20028 in response to the AMO's request.

On October 19, 2020, Minister Jeff Yurek (MECP) announced the release of the proposed Regulation which will transition the responsibility of the Blue Box Program from municipalities to the producer responsibility framework model. The proposed regulation makes producers responsible for providing collection services to local communities, manage blue box materials, and establishes targets to increase diversion rates.

Staff have prepared comments for Council's approval to be forwarded to the Ontario Ministry of the Environment, Conservation and Parks (MECP) in response to the Ontario's Environmental and Regulatory Registries (ERO #019-2579) posting which are due to the MECP by December 3, 2020. The comments are found in Appendix "A" attached to Report PW20073. A copy of the City of Hamilton's comments will also be shared with AMO for their information.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

The City currently has legislated responsibility under Ontario Regulation 101/94 (Section 7. (1)) of the Environmental Protection Act to establish, operate and maintain a blue box waste management system.

The provision of recycling services supports the City's Solid Waste Management Master Plan guiding principles:

1) The City of Hamilton must maintain responsibility for the residual wastes generated within its boundaries.
2) The Glanbrook Landfill is a valuable resource. The City of Hamilton must minimize residual waste and optimize the use of the City's diversion and disposal facilities.
3) The City of Hamilton must lead and encourage the changes necessary to adopt the principles of waste minimization.

RELEVANT CONSULTATION

The recommendation in this report was prepared in consultation with staff from the Public Works Department, Environmental Services Division, Waste Collection Section and Recycling and Waste Disposal Section.

ANALYSIS AND RATIONALE FOR RECOMMENDATION(S)

The information and recommendation in this report have City wide implications related to the City's recycling program. The transition of the Blue Box Program will have a significant impact on the City's overall program including recycling collection and the operation of the City-owned Material Recycling Facility (MRF).

The focus of the proposed Regulation is to adopt a producer responsibility model which can reduce waste, improve recycling opportunities, and drive better economic and environmental outcomes. The proposed Regulation is guided by the following objectives:

- Producers to be responsible to pay for the recycling of products and packaging that they produce;
- Standardization of the materials accepted in the Blue Box Program across Ontario;
- Maintaining or improving Blue Box collection services;
- Improving diversion rates and increasing what materials can be recycled, and;
- Reducing litter and waste in communities and public spaces.

There are several important elements in the draft Regulation which describes the future operating requirements for the Blue Box Program. The main areas include the following:

- Designating materials - expanding the range of Blue Box materials collected and managed to include recyclable packaging, single-use packaging-like products and single-use food and beverage service products;
- Defining responsible producers - a methodology will be established to identify the producers who will have responsibilities under the Regulation;
- Common collection system - producers would be required to collect a consistent set of materials in the Blue Box Program across the province;
- Collection requirements - the Blue Box Program will service permanent and seasonal dwellings, multi-unit residential buildings, schools, retirement homes, long-term care homes and some public spaces. The proposed Regulation defines the requirements for collection frequency and provision of recycling containers;
- Management requirements - producers will be responsible for meeting diversion targets based on the materials they supply into the Ontario marketplace;
- First Nations - the proposed regulation would require producers to provide the same services to eligible First Nation communities similarly to eligible municipalities and other territories;
- Promotion and education - producers will be responsible for promotion and education requirements to educate consumers about Blue Box services, and;
- Registration and reporting - producers, service providers and other applicable persons will be required to register, maintain records, and provide audited data to the RPRA.

The MECP is also seeking public input on several additional items which could be incorporated into the regulation in the future, e.g. dispute resolution, provision of financial assurance, etc. The release of the final regulation is anticipated in early 2021.

Blue Box Program Transition Schedule

The provincial government developed a phased timeline for the producers to become responsible for the Blue Box Program over a three-year period between January 1, 2023 to December 31, 2025. The proposed Regulation includes the Blue Box Transition Schedule which identifies the transition timing for municipalities. The proposed Regulation indicates that the City's transition is scheduled to take place in 2025 which is later than the City's preferred transition date of April 1, 2023.

The City is concerned with this later transition date as when Council endorsed the City's preferred transition date for Report PW20028, it was after analysis and careful consideration of both pros and cons to transitioning in 2023, 2024 or 2025. The significant financial savings of approximately $27M, achieved by transitioning in April

2023, made it the obvious recommendation for the transition date for Hamilton. By transitioning later than the City's preferred date, the City will now continue to have legislated and financial responsibility for providing recycling services until the City's Blue Box Program is fully transitioned to the new producer responsibility model in 2025. As seen in the Financial Implications section above, transitioning the Blue Box Program in 2025 will perpetuate a significant budget expenditure on the City. Also, the City will be responsible for a portion of the program costs in 2025 until the Blue Box Program is transitioned to the producer responsibility system at an undetermined time throughout the year.

The comments found in Appendix "A" attached to Report PW20073 requests that the MECP change the transition date for the City of Hamilton to be 2023 rather than 2025. If this request is not accepted and the City must retain the transition year of 2025, then the City requests that the MECP provide 100% funding for the Blue Box Program from 2023 to the transition date in 2025. This can be accomplished by either taking the savings from municipalities that transition earlier and distribute it equitably across the province to municipalities with delayed transition or by Producers taking full responsibility in the form of 100% RPRA funding.

Operational Implications for City Services

The transition of the Blue Box Program will have a significant impact on the City's overall waste management system including recycling collection and the operation of the City-owned MRF. Staff reviewed the draft Regulation in consideration of potential impacts to the City's waste management services, which include:

- Service continuity - It is essential that the future Blue Box Program service level is equal or exceeds existing service standards, i.e. collection frequency, type of recycling receptacles used, and collection method provided;
- Eligible Properties - The City of Hamilton provides recycling collection for properties which are not included in the proposed Regulation such as mixed use buildings with commercial units and residential units. These non-residential sources are not included in the producer responsibility system.
- Designated materials - The proposed Regulation includes a broad range of materials which historically have not been accepted in most municipal Blue Box programs in Ontario, which is a concern if there are no sustainable end-markets which can accept these products;
- Promotion and education – Ongoing Blue Box Program information provided by the producers after December 31, 2026 should include information on how to prepare materials for set out, directions for how materials should be sorted, and how to contact the recycling collection service provider with questions, service issues and complaint resolution;

- Stranded Assets - Existing municipal recycling assets, such as MRFs, recycling receptables, etc, may or may not be utilized by producers as part of the new Blue Box Program which places pressure on municipalities to deal with stranded assets; and
- Stranded Contracts – Existing contracts will need to be terminated depending on the timing of the transition. Early termination clauses have been included in the contracts for the collection and processing of recyclables, however a better outcome for the City would be for the Producers to take over the contracts i.e. Curbisde Collection.

Additional information and City comments on these impacts are outlined in Appendix "A" attached to Report PW20073.

Staff will continue to follow-up on the WFOA's progress and will work with municipal groups, industry associations and other stakeholders to provide the Province with comprehensive comments on the draft Regulation and associated regulations and policies. Additional information will be provided to Council as more details become known.

Public Consultation

The draft Regulation is available through the Environmental and Regulatory Registries (ERO #019-2579) for public comment from October 19, 2020 to December 3, 2020. Staff is participating in webinars and meetings hosted by the RPRA and other municipal associations to provide stakeholder feedback for the draft Regulation.

Subject to Council's input and comments, staff is planning to submit the comments in Appendix "A" attached to Report PW20073 on the City's behalf to the MECP prior to the ERO submission deadline of December 3, 2020.

ALTERNATIVES FOR CONSIDERATION

Council could decide to request amendments or not approve the comments in part or in its entirety found in Appendix "A" attached to Report PW20073 and direct staff to revise the comments.

Financial: There are no financial implications associated with this alternative.

Staffing: There are no staffing implications associated with this alternative.

Legal: There are no legal implications associated with this alternative.

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Clean and Green

Hamilton is environmentally sustainable with a healthy balance of natural and urban spaces.

Built Environment and Infrastructure

Hamilton is supported by state-of-the-art infrastructure, transportation options, buildings and public spaces that create a dynamic City.

APPENDICES AND SCHEDULES ATTACHED

Appendix “A” to Report PW20073 – City of Hamilton Comments on the Environmental and Regulatory Registries (ERO #019-2579)

City of Hamilton ERO Comments

Proposed Regulation and proposed regulatory amendments to Ontario Regulation 101/94 to make producers responsible for operating Ontario’s Blue Box Program (ERO: 019-2579)

As a member of the Regional Public Works Commissioners of Ontario (RPWCO), the City of Hamilton is providing comments on the proposed Regulation and proposed regulatory amendments to Ontario Regulation 101/94 to make producers responsible for operating Ontario’s Blue Box Program.

The following comments represent sections of the proposed Regulation that the City of Hamilton has concerns with, would like the MECP to consider or would like additional information on:

1. Request to change scheduled transition date: The City of Hamilton requested through a Council resolution to transition the Blue Box Program on April 1, 2023; however, the transition schedule attached to the proposed Regulation identified the transition year for the City of Hamilton as 2025. Delaying transition for an additional two years creates increased financial burden to continue to support the municipal Blue Box Program until the eventual transition date. The cost estimates prepared by the City of Hamilton assume that the Resource Productivity and Recovery Authority (RPRA) continue to fund municipal recycling programs at 50% until the time of transition. To date, the MECP has not indicated if this will be the case.

   It is requested that the City of Hamilton be granted its requested transition date of 2023. If this request is not accepted and the City must retain the transition year of 2025, then the City requests that the MECP provide 100% funding for the Blue Box Program from 2023 to the transition date in 2025. This can be accomplished by either taking the savings from municipalities that transition earlier and distribute it equitably across the province to municipalities with delayed transition or by Producers taking full responsibility in the form of 100% RPRA funding starting in 2023.

2. Consideration of stranded assets: Many municipalities such as the City of Hamilton have made financial investments in equipment and infrastructure designed to process recyclable material. In some instances, municipalities may never realize the return on these investments and should be compensated through the regulation for any stranded assets.

3. Consideration of stranded contracts: In addition to stranded assets, existing contracts will need to be terminated depending on the timing of the transition. Early termination clauses have been included in the contracts for the collection and processing of recyclables which lead to additional costs to the municipality;

however, a better outcome for the City of Hamilton would be for the Producers to take over the contracts until they reach the end of their contractual term i.e. Curbside Collection.

4. Additional disposal costs: It is a concern that municipalities may face additional disposal costs and lost landfill life if the producer responsibility system does not meet its intended waste diversion targets. The City of Hamilton recommends that the future Blue Box Program avoids any additional costs to be paid by municipalities for providing waste diversion programs or managing their waste disposal systems. Municipalities are a major stakeholder regarding waste management services in Ontario; therefore, it is important that municipalities continue to be involved with discussions, assessments, program design, implementation, and outcomes of the actions related to waste diversion and resource recovery infrastructure.

5. Seamless transition and continuity of program: The City of Hamilton recommends that the Service Standards identified in the proposed Regulation support ongoing and seamless access to recycling services for customers and that the service is equal to or exceeds the existing service standards. i.e. collection frequency, type of recycling receptacles used, and collection method used.

   Maintaining a reasonable level of continuity with existing municipal recycling programs is strongly encouraged to avoid any negative impacts to municipal waste disposal programs. Reducing the recycling program service level will be a disincentive for many residents to participate which could lead to additional materials being sent to landfill and higher costs experienced by municipalities.

6. Promotion and Education: The City of Hamilton recommends that the Producers should be responsible for providing ongoing promotion and educational materials for the Blue Box Program to reinforce positive consumer behaviours required to maintain program performance beyond December 31, 2025, including information on how to prepare materials for placement in the blue box receptacle, directions for how materials should be sorted as well as how to contact the recycling collection provider with questions, service issues and complaint resolution.

7. Enforcement for non-compliance: The City of Hamilton recommends that additional information be included in the proposed Regulation to identify responsibilities for enforcement procedures respecting non-compliance of the material set out requirements for the Blue Box Program. In particular, municipalities should not be responsible for additional work and costs associated with enforcement activities if blue box materials are set out incorrectly by residences, facilities, or in public spaces.

8. Clarification of development charges: Further clarity should be provided in the proposed Regulation on the operational requirements and responsibilities to provide recycling collection and recycling receptacles for new developments. It is strongly recommended that the requirements in the proposed Regulation respecting the Blue Box Program for new developments established after August 15, 2019 does not conflict with the requirements outlined in the Ontario Development Charges Act, 1997, S.O. 1997, c.27. The Ontario Development Charges Act, 1997 currently allows municipalities to use development charges to help pay for waste diversion, such as recycling, yard waste and source separated organics.

9. Clarification of building classifications: Many municipalities such as the City of Hamilton provide recycling collection services for residential building classifications which currently are not identified in the list of eligible sources in the proposed Regulation. For example:

   - Institutional residential properties such as group homes as defined in Clause 240(1) of the Municipal Act, 2001, which can be included as part of retirement homes and long-term care facilities;
   - Off-campus student buildings, which can be considered as part of, permanent or seasonal single and multi-family households;
   - Multi-use buildings which include a combination of small commercial units and multi-residential dwellings. For most of these buildings, the waste materials are taken to a common collection area. Further information needs to be provided on the service eligibility for these types of properties since commercial properties are not included as an eligible source in the proposed Regulation;
   - Place of worship - with a clergy residence as defined by Municipal Property Assessment Corporation, and;
   - Farm/agricultural properties with residential units.

   The City of Hamilton recommends that these types of residential properties are included as part of the eligible sources.

10. Clarification of public spaces: The proposed Regulation identifies that Producers are responsible for providing recycling collection for public spaces which includes “parks, playgrounds, or any outdoor area which is owned by, or made available by, a municipality, and that is located in a business improvement area”. The City of Hamilton recommends that service is also provided for recycling receptacles in public spaces, such as street side litter / recycling containers which are currently serviced by municipalities that are outside of business improvement areas.

11. Expansion to include IC&I waste: The proposed Regulation is focused on capturing materials from residential sources. It is essential that additional

policies and regulations are developed to expand waste diversion programs to all sectors including industries, commercial properties, and institutions.

12. Consideration of legislation related to banning single use plastics: The proposed Regulation identifies the inclusion of a broad range of “blue box packaging” such as disposable straws, cutlery or plates which historically have not been accepted in most municipal Blue Box programs. The Ontario Government must be consistent with legislation from the Federal government related to banning single use plastics and ensure there are sustainable end-markets for all remaining types of blue box materials identified in the proposed Regulation that can be recovered and re-integrated into the economy.

13. Clarification of types and costs of receptacles / containers: The proposed Regulation identifies the requirement for the producers to supply blue box receptacles for eligible sources, facilities, and public spaces. The City of Hamilton requires further information be provided respecting the types of containers / receptacles for all eligible sources, confirmation of who will bear the cost and how replacement receptacles will be made available.

The following comments are in support of the proposed Regulation:

1. Strategies that reduce waste which considers environmental responsibility, economic requirements and social accountability.

1. The Ontario Government’s vision of a circular economy should recognize all steps to prevent and reduce waste across the supply chain and by consumers.

3. The province-wide standardization of materials eligible for the Blue Box Program is a positive change which will help encourage participation and reduce confusion in the Blue Box Program and support the draft Regulation’s goal to improve waste diversion across the province.

10.1

CITY OF HAMILTON

M O T I O N

Public Works Committee: November 16, 2020

MOVED BY COUNCILLOR S. MERULLA.……..……..……...

SECONDED BY COUNCILLOR ……..……

Kenilworth Traffic Circle Water Feature and Beautification (Ward 4)

WHEREAS, there is interest from Ward 4 residents to enhance the Kenilworth Traffic Circle to allow for the potential installation of water feature and additional floral planting beds to beautify the roadway;

WHEREAS, floral beautification and design elements in the road allowance is appreciated by residents and visitors to the City of Hamilton;

WHEREAS, a preliminary design concept is required to understand the servicing requirements and to develop a cost estimate for a water feature and planting bed; and;

WHEREAS, there is currently no funding for the proposed enhancements;

THEREFORE, BE IT RESOLVED:

(a) That staff engage a consultant to develop a conceptual plan and cost estimate for the construction of a water feature and additional floral planting beds in the Kenilworth Traffic Circle, with a capital cost of $25,000 to be funded from the Ward 4 Special Capital Re-Investment Reserve Account;

(b) That any funds remaining in the Project ID after the Kenilworth Traffic Circle water feature and beautification study is completed, be returned to the Ward 4 Special Capital Re-Investment Reserve Account; and,

(c) That the Mayor and City Clerk be authorized and directed to execute any required agreement(s) and ancillary documents, with such terms and conditions in a form satisfactory to the City Solicitor.

10.2

CITY OF HAMILTON

M O T I O N

Public Works Committee: November 16, 2020

MOVED BY COUNCILLOR T. JACKSON.……..……..……...

SECONDED BY COUNCILLOR ……..……

Lisgar Park Bocce Courts and Lisgar Park Clubhouse/Washroom Facilities Security Enhancements (Ward 6)

WHEREAS, the City of Hamilton (the "City") is the owner of the lands and buildings located at Lisgar Park, municipally known as 95 Carson Drive, Hamilton and which property includes the Lisgar Park Bocce Courts and Lisgar Park Clubhouse/ Washroom Facilities, hereinafter collectively referred to as ("Lisgar Park");

WHEREAS, the City is committed to providing safe and inclusive spaces for all residents to enjoy recreational activities within their neighborhoods by implementing measures that mitigate risks associated with vandalism and other security breaches;

WHEREAS, several initiatives are currently in progress consistent with City Council's July 2020 approval of Report #PW20046 whereby staff committed to creating a Parks Security Committee (PSC) in Q3 of 2020 that will identify all applicable park properties and categorize each property as a regular site or high priority property based on recent activities and criminal behaviors (past 3 years) and whereby a 2-year pilot "Parks Security Patrol" program is set to commence in the spring of 2021;

WHEREAS, there have been an increasing number of repeated vandalism and security incidents over the past several years at the Lisgar Park, including three separate break and enter incidents in 2020, and such incidents undeniably have caused erosion of the public trust and confidence in the safety of the Lisgar Park facilities;

WHEREAS, since 2018 over $6,000 has been spent on repairs, graffiti and damages directly related to vandalism; and,

WHEREAS, the City wishes to proactively address the safety concerns of the community at Lisgar Park, as well as, to mitigate future risks of repeated vandalism incidents;

THEREFORE, BE IT RESOLVED:

(a) That, in advance of the start of the Parks Security Patrol Program, staff designate Lisgar Park as a high priority for implementation of proactive security measures, so as to mitigate further risks of destructive behaviours at this park;

(b) That the Corporate Security Office and staff in the Parks Division work collaboratively to procure and install security enhancing measures at Lisgar

Park including, but not limited to, CCTV cameras, intrusion detection systems, enhanced lighting, signage, fencing and horticulture related sightline mitigation and any other security measures as may deemed appropriate by the Corporate Security Specialist working collaboratively with the Manager of Parks;

(c) That funding for the security enhancement measures at Lisgar Park, estimated at $20,000 +/- 10% contingency, be funded from the Ward 6 Special Capital Re-Investment Discretionary Fund (#3302009600) and that the operating impact of capital estimated at $150 annually for monitoring costs be appropriated to Operating Account Dept Id #792667; and,

(d) That the Mayor and City Clerk be authorized and directed to execute any required agreement(s) and ancillary documents, with such terms and conditions in a form satisfactory to the City Solicitor.