City of Hamilton
PUBLIC WORKS COMMITTEE
AGENDA

Meeting #:	21-011
Date:	August 11, 2021
Time:	1:30 p.m.
Location:	Due to the COVID-19 and the Closure of City Hall (CC) 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. CEREMONIAL ACTIVITIES

2. APPROVAL OF AGENDA

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

3. DECLARATIONS OF INTEREST

4. APPROVAL OF MINUTES OF PREVIOUS MEETING

   4.1. July 7, 2021 — 5

5. COMMUNICATIONS

6. DELEGATION REQUESTS

7. CONSENT ITEMS

   7.1. COVID-19 Wastewater Surveillance Initiative (PW21048) (City Wide) — 29

14.1. Material Recycling Facility Unsolicited Proposal (PW21050) (City Wide)

Pursuant to Section 9.1, Sub-sections (j) and (k) of the City's Procedural By-law 21-021 and Section 239(2), Sub-sections (j) and (k) of the *Ontario Municipal Act, 2001*, as amended, as the subject matter pertains to a trade secret or scientific, technical, commercial or financial information that belongs to the municipality or local board and has monetary value or potential monetary value; and, a position, plan, procedure, criteria or instruction to be applied to any negotiations carried on or to be carried on by or on behalf of the municipality or local board.

15. ADJOURNMENT

4.1

PUBLIC WORKS COMMITTEE
MINUTES 21-010

1:30 p.m.
Wednesday, July 7, 2021
Council Chambers
Hamilton City Hall
71 Main Street West

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

Absent with Regrets: Councillor T. Whitehead – Leave of Absence

Also Present: Councillor M. Wilson

THE FOLLOWING ITEMS WERE REFERRED TO COUNCIL FOR CONSIDERATION:

1. Woodward Upgrades Construction Update (PW20043(b)) (City Wide) (Item 7.1)

(Pearson/Ferguson)
That Report PW20043(b), respecting a Woodward Upgrades Construction Update, be received.

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

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

2. Proposed Permanent Closure and Sale of a Portion of Road Allowance Abutting 38 Strachan Street West, Hamilton (PW21034) (Ward 2) (deferred from the May 31, 2021 meeting) (Item 9.1)

(Farr/Pauls)
That Report PW21034, respecting the Proposed Permanent Closure and Sale of a Portion of Road Allowance Abutting 38 Strachan Street West, Hamilton, be REFERRED to the July 9, 2021 Council meeting for consideration to allow for a meeting between the appropriate staff, the Ward Councillor and the proponents in gauging the potential proponents interest in amending the existing development agreement to no longer include the Bay / Strachan parcel while still maintaining the same approximate level of affordable housing units (which includes an approximate net gain of 110 new units) in the over-all mixed income Jamesville proposal.

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

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

3. Proposed Permanent Closure and Sale of a Portion of Public Unassumed Alley Abutting 315B Aberdeen Avenue, Hamilton (PW21041) (Ward 1) (Item 9.2)

(Pearson/Danko)
(a) That the application of the owner of 315B Aberdeen Avenue, Hamilton, to permanently close and purchase a portion of the unassumed alleyway abutting 315B Aberdeen Avenue, Hamilton, (“Subject Lands”), as shown on Appendix "A" attached to Report PW21041, be approved, subject to the following conditions:

(i) That the applicant makes an application to the Ontario Superior Court of Justice, under Section 88 of the Registry Act, for an order to permanently close the Subject Lands, if required by the City, subject to:

(1) The General Manager of Public Works, or designate, signing the appropriate documentation to obtain any required court order; and,

(2) The documentation regarding any required application to the Ontario Superior Court of Justice being prepared by the applicant, to the satisfaction of the City Solicitor;

(ii) That the applicant be fully responsible for the deposit of a reference plan in the proper land registry office, and that said plan be prepared by an Ontario Land Surveyor, to the satisfaction of the Manager, Geomatics and Corridor Management Section, and that the applicant also deposit a reproducible copy of said plan with the Manager, Geomatics and Corridor Management Section;

(iii) That, subject to any required application to the Ontario Superior Court of Justice to permanently close the Subject Lands being approved;

(1) The City Solicitor be authorized and directed to prepare all necessary by-laws to permanently close and sell the alleyway, for enactment by Council;

(2) That the City Solicitor be authorized to amend and waive such terms as they consider reasonable to give effect to this authorization and direction;

(3) The Real Estate Section of the Planning and Economic Development Department be authorized and directed to secure any requisite easement agreements (subject to the obligations of the applicant to negotiate such agreements as set out in recommendation (a)(iv)), right of way agreements, and/or other agreements deemed necessary to affect the orderly disposition of the Subject Lands and to proceed to sell the Subject Lands to the owners of 315B Aberdeen Avenue, Hamilton, as described in Report PW21041, in accordance with the City of Hamilton Sale of Land Policy By-law 14-204;

(4) The City Solicitor be authorized to complete the transfer of the Subject Lands to the owners of 315B Aberdeen Avenue, Hamilton and transfers of easement to all land owners requiring access to the Subject Lands as outlined in Report PW21041, pursuant to an Agreement of Purchase and Sale or Offer to Purchase as negotiated by the Real Estate Section of the Planning and Economic Development Department;

(5) The City Solicitor be authorized and directed to register a certified copy of the by-laws permanently closing and selling the alleyway in the proper land registry office;

(6) The Public Works Department publish any required notice of the City's intention to pass the by-laws and/or permanently sell the closed alleyway pursuant to City of Hamilton Sale of Land Policy By-law 14-204;

(iv) That the applicant be responsible to arrange, negotiate, and obtain agreements, at the applicant's sole cost, with respect to all necessary transfers of right of way easements as outlined and as a condition of the transfer of the Subject Lands and for all legal costs associated with the aforesaid as well as the registration of required right of way agreements on title with the land owners who require access as indicated within Report PW21041 and such agreements ensure the following terms are included;

(1) That 72 hours prior written notice delivered to all abutting landowners of the private right of way lands as shown on Appendix "C" attached to Report PW21041, of any construction or other activities on or over the laneway;

(2) That any such construction or other activity not interfere with or impede access to or over the laneway except between the hours of 9:00am and 5:00pm on the days specified in the prior written notice;

(3) That at all other times there is to be unobstructed access to all abutting land owners;

(v) That the applicant prepares a site drainage plan to the satisfaction of the Manager, Development Approvals;

(vi) That the applicant works with the City of Hamilton to ensures all sight lines are clear at the intersection of Aberdeen Avenue and Locke Street South, Hamilton which fall on City property, to the satisfaction of the Manager, Traffic Safety;

(vii) That the applicant abides by Committee of Adjustment decision HM/A-19:290 and subsequent Local Planning Appeal Tribunal decision PL200334;

(viii) That the applicant be responsible for all costs associated with any construction related damages to the retaining wall and landscaping at 315 Aberdeen Avenue, Hamilton, excluding any costs related to the works proposed under recommendation "(a)(x)";

(ix) That the proposed "right of way" lands as shown on Appendix "C" attached to Report PW21041 be paved at the expense of the applicant once recommendations "(a)(v)" and "(a)(x)" have been cleared;

(x) That a portion of the proceeds of the sale of the Subject Lands not exceeding $40,000.00 be transferred to the appropriate account as determined by the Manager, Transportation, Operations, and Maintenance Division for the purpose of widening the sidewalk at the southwest corner of the intersection located at Locke Street South and Aberdeen Avenue, Hamilton, subject to the following:

(1) That no building permits be submitted by the owner of 315B Aberdeen Avenue, Hamilton, or issued by the City of Hamilton until all works related to recommendation "(a)(x)" be completed;

(2) That the City of Hamilton retain ownership and maintenance responsibility of all works completed by the City of Hamilton related to recommendation "(a)(x)";

(3) That the owner of 315B Aberdeen Avenue, Hamilton, install at his own expense a stop sign at the south side of the property boundary between the proposed "right of way" lands and City of Hamilton road allowance;

(4) That the retaining wall be constructed of concrete to match the existing retaining walls at 315 Aberdeen Avenue, Hamilton and ensure the newly constructed retaining wall is adequately tied in to the existing step retaining wall at 315 Aberdeen Avenue, Hamilton.

Result: **Motion CARRIED by a vote of 9 to 1, as follows:**

YES - Ward 2 Councillor Jason Farr
YES - Vice Chair - Ward 3 Councillor Nrinder Nann
YES - Ward 4 Councillor Sam Merulla
YES - Ward 5 Councillor Chad Collins
YES - Ward 6 Councillor Tom Jackson
YES - Ward 7 Councillor Esther Pauls
NO - Ward 8 Councillor John-Paul Danko
YES - Ward 10 Councillor Maria Pearson
YES - Ward 12 Councillor Lloyd Ferguson
YES - Chair - Ward 13 Councillor Arlene VanderBeek
NOT PRESENT - Ward 14 Councillor Terry Whitehead

4. Receiving Portland Bikeshare Equipment (PED21144) (City Wide) (Item 10.1)

(Farr/Nann)

(a) That staff be authorized and directed to submit a formal expression of interest to the City of Portland, Oregon, USA, to receive up to 600 used bike share bikes that have become available via donation as a result of Portland's upgrade to a newer system;

(b) That, should the expression of interest be successful, that the bike share bikes, which are fully compatible with Hamilton's current bikeshare technology, be added to the City-owned bikeshare fleet as a City-owned asset and be used to extend the fleet life by providing a reliable source of spare equipment and parts;

(c) That staff be authorized and directed to arrange for shipping and other logistics to transport the donated bikes from Portland to Hamilton, pursuant to the City's Procurement Policy;

(d) That the estimated cost of $50,000 for shipping the bikes from Portland, moving bikes into the current City-owned maintenance and storage facility and rebranding the bikes to reflect Hamilton Bike Share logos be funded through the Sustainable Mobility Programs Project ID: 4032055820;

(e) That staff negotiate with Hamilton Bike Share Inc. (HBSI) for the use of the donated bikeshare equipment through the current contract period which extends to December 31, 2022; and,

(f) That the General Manager of Planning and Economic Development be authorized to negotiate, enter into, and execute the agreements and any ancillary documents required to give effect to the donation of the bikeshare equipment from Portland, the shipping and storage of the equipment, and the arrangements with Hamilton Bike Share Inc. (HBSI), all in a form satisfactory to the City Solicitor, based on the general scope and terms outlined in this Report.

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

YES - Ward 2 Councillor Jason Farr
YES - Vice Chair - Ward 3 Councillor Nrinder Nann
YES - 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 - Ward 8 Councillor John-Paul Danko
YES - Ward 10 Councillor Maria Pearson
YES - Ward 12 Councillor Lloyd Ferguson
YES - Chair - Ward 13 Councillor Arlene VanderBeek
NOT PRESENT - Ward 14 Councillor Terry Whitehead

5. Investment in Churchill Park (Ward 1) (Item 11.1)

(Nann/Danko)
WHEREAS, the City of Hamilton owned fieldhouse facilities in Ward 1 are maintained by the City of Hamilton's Facilities Operations & Maintenance Section of the Energy, Fleet & Facilities Management Division, Public Works;

WHEREAS, many of the current fieldhouses in Ward 1 need lifecycle repair and accessibility upgrades;

WHEREAS, flexible community space will enhance all season programming at Churchill Park, and will draw more users to the Park; and,

WHEREAS, Churchill Park has been identified by the community as a priority facility in need of improved accessibility, including accessible washrooms to support the Clubhouse users;

THEREFORE, BE IT RESOLVED:

(a) That Public Works Facilities staff be authorized and directed to retain a Prime Design Consultant to undertake both a feasibility study of accessibility improvements, as well as a Cultural Heritage Study, of Churchill Park, to determine recommendations for upgrades to support the community and programming uses;

(b) That the funding for the feasibility study of accessibility improvements, as well as a Cultural Heritage Study, of Churchill Park, at a cost of $150,000, to be funded from the Ward 1 Area Rating Reserve Account (108051) be approved; 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 9 to 0, as follows:**

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

6. Investment in Hamilton Amateur Athletic Association (HAAA) Park Fieldhouse (Ward 1) (Item 11.2)

(Nann/Danko)
WHEREAS, the City of Hamilton owned fieldhouse facilities in Ward 1 are maintained by the City of Hamilton’s Facilities Operations & Maintenance Section of the Energy, Fleet & Facilities Management Division, Public Works;

WHEREAS, many of the current fieldhouses in Ward 1 need lifecycle repair and accessibility upgrades;

WHEREAS, future investments are anticipated that will include a redeveloped spray pad and playground that will draw more users to HAAA Park; and,

WHEREAS, HAAA Fieldhouse has been identified by the community as a priority facility in need of improved accessibility to support the users of the playground, spray pad, and other park amenities;

THEREFORE, BE IT RESOLVED:

(a) That Public Works Facilities staff be authorized and directed to retain a Prime Design Consultant to undertake a feasibility study of accessibility improvements, including a Cultural Heritage Assessment, of the Hamilton Amateur Athletic Association (HAAA) Fieldhouse, to support the community, programming, and anticipated increased use after future investments in park infrastructure;

(b) That the funding for the feasibility study of accessibility improvements, including a Cultural Heritage Assessment, of the HAAA Fieldhouse, at a cost of $150,000, to be funded from the Ward 1 Area Rating Reserve Account (108051) be approved; 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 9 to 0, as follows:**

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

7. Design and Construction of a Spray Pad at Woodlands Park, Hamilton (Ward 3) (Item 11.3)

(Nann/Pauls)
WHEREAS, parks play an important role in the creation of livable, inclusive cities, and the amenities in parks animate the spaces for use by the public;

WHEREAS, Woodlands Park, 501 Barton Street East, Hamilton, is a park with servicing on site, washroom facilities, parking lot, adjacent transit stop, and therefore suitable for a spray pad amenity;

WHEREAS, climate change is leading to more heat alerts and hotter temperatures, and residents look to parks for opportunities to cool off;

WHEREAS, the Barton Village BIA created a petition to indicate community interest and support for a spray pad that received approximately 250 signatures in February 2021; and,

WHEREAS, the Ward 3 Office has determined this park is a priority for improvement and investment;

THEREFORE, BE IT RESOLVED:

(a) That $710,000 of funding be allocated from the Ward 3 Special Capital Re-investment Reserve Fund (#108053), to design and construct the Woodlands Park spray pad development project;

(b) That the annual operating impacts of $29,000 for the supply of water, maintenance, and winterization be included in the 2022 Public Works Department base operating budget submission; 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 9 to 0, as follows:**

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

8. Installation of Pathway Lighting for the Buchanan Neighbourhood in Ward 8 (Item 11.4)

(Danko/Nann)
WHEREAS, residents are requesting the installation of lighting for pathways that connect roadways to roadways within the Buchanan neighbourhood in Ward 8, to enhance walkability and pedestrian comfort and safety at night;

THEREFORE, BE IT RESOLVED:

(a) That Transportation Operations and Maintenance staff be authorized and directed to install pedestrian scale lighting on the following eight pathways in the Buchanan neighbourhood in 2021:

(i) Laurier Avenue to Delmar Drive;

(ii) Laurier Drive to Collier Crescent;

(iii) Delmar Drive to Collier Crescent;

(iv) Laurier Avenue to Algoma Crescent;

(v) Leadale Place to Mohawk Road West;

(vi) Verona Place to Columbia Drive;

(vii) Geneva Drive to Columbia Drive; and,

(viii) Delmar Drive to Geneva Drive;

(b) That all costs associated with the installation of pedestrian scale lighting on these pathways be funded from the Ward 8 Special Capital Reinvestment Reserve Account (108058) at an upset limit, including contingency, not to exceed $180,000; 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 9 to 0, as follows:**

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

9. Reimbursement of Backwater Valve Installation at 35 Lisgar Court, Hamilton (Ward 6) (Item 11.5)

(Jackson/Collins)

WHEREAS, the Protective Plumbing Program was adopted by Council on September 30, 2009, (Report PW09082), and appended to the Water and Wastewater Infrastructure Support Community Improvement Plan, on August 21, 2020;

WHEREAS, residential properties that are owner occupied or rented and attached to the municipal sewer system are eligible for grants of up to $2,000 under the Protective Plumbing Program, provided the eligible works conform to the Ontario Building Code;

WHEREAS, in 2010, after flooding occurred in 2009, the owner of 35 Lisgar Court entered into a private agreement with a local contractor to purchase a building permit to install a Mainline Fullport Backwater Valve and receiving the maximum grant of $2,000;

WHEREAS, in 2015, the Mainline Adapt-a-Valve backwater valve was approved for installation for sewer laterals at a depth greater than 24″ resulting in a unique situation;

WHEREAS, in 2019, the owner of 35 Lisgar Court experienced a sewer backup again; and,

WHEREAS, in October 2020, the family of the homeowner contracted a local plumber to provide an estimate for cleaning the backwater valve, the plumber noted that the Mainline Fullport Backwater Valve that was installed in 2010 is at depth of 40″ and THUS inaccessible for proper maintenance and cleaning;

THEREFORE, BE IT RESOLVED:

(a) That following the replacement of the Mainline Fullport Backwater Valve with an Adapt-A-Valve backwater valve at 35 Lisgar Court, by a qualified contractor retained by the resident, and submission of the final invoice and proof of payment be given to the Hamilton Water Services Division, the homeowner be reimbursed a maximum of $2,000 from the Ward 6 Special Capital Re-Investment Discretionary Fund (#3301909600); and,

(b) 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 9 to 0, as follows:**

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

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

10. Installation of a Speed Cushion on Robson Crescent, Hamilton (Ward 6) (Item 11.6)

(Jackson/Collins)
WHEREAS, residents are requesting the installation of a speed cushion along Robson Crescent, which abuts Randall Park, to address roadway safety concerns as a result of speeding and cut through traffic;

THEREFORE, BE IT RESOLVED:

(a) That staff be authorized and directed to install one speed cushion at #99 Robson Crescent, Hamilton, at a cost not to exceed $7,000, to be funded from the Ward 6 Minor Maintenance Account (4031911606); and,

(b) 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 9 to 0, as follows:

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

11. Installation of an All-Way Stop at the Intersection of Rosewell Street and Rexford Drive, Hamilton (Ward 6) (Item 11.7)

(Jackson/Collins)
WHEREAS, the City of Hamilton is committed to creating safe neighborhoods and vibrant communities;

WHEREAS, ensuring the safety of both pedestrians and motorists is a priority;

WHEREAS, this request was driven and initiated by resident concerns to the Ward 6 Councillor's Office; and,

WHEREAS, this intersection is a popular crossing point for pedestrians/cyclists accessing the City's Multi-use Recreational Pathway on the south side of the Lincoln Alexander Parkway;

THEREFORE, BE IT RESOLVED:

(a) That staff be authorized and directed to add new stop controls on Rosewell Street at Rexford Drive to convert the intersection to an all-way stop, at a cost not to exceed $10,000, to be funded from the Ward 6 Minor Maintenance Account (4031911606); and,

(b) 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 9 to 0, as follows:**

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

12. Purchase of New Mounting Base for Memorial Stone within Fisher Mills Park (Ward 13) (Item 11.8)

(VanderBeek/Pearson)
WHEREAS, a tragic accident occurred on the Greensville Hill, in Dundas, on March 2, 1974, which took the lives of teenagers Ingrid Scheinecker and Margaret Kaarsemaker and severely injured Kathy Kaarsemaker;

WHEREAS, a memorial stone was donated by the students and staff of Dundas District High School in their memory;

WHEREAS, the school building is now a privately-owned condominium residence;

WHEREAS, the former school's playfield now belongs to the City of Hamilton;

WHEREAS, the stone was relocated to the municipally-owned Fisher Mills Park, opposite the former school; and,

WHEREAS, the memorial in Fisher's Mill Park requires a new mounting base for the stone;

THEREFORE, BE IT RESOLVED:

(a) That Public Works Parks staff be authorized and directed to purchase the required mounting base for the Memorial Stone within Fisher Mills Park, at a cost not to exceed $1,500, to be funded from the Ward 13 Non-Property Tax Revenue account (3301609613); and,

(b) 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 8 to 0, as follows:

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

13. Locke Street BIA Area Pedestrianization Grant (Ward 1) (Item 11.9)

(Pauls/Pearson)
WHEREAS, COVID-19 has hit Canadian small business harder than the 2008 financial crisis;

WHEREAS, small businesses represent 97.9% of all Canadian businesses, contributing almost half of the GDP generated by the private sector and are collectively Canada's largest employer, putting more than 8.4 million Canadians to work;

WHEREAS, the Mayor's Task Force on Economic Recovery provided multi-sectoral leadership and direction to guide Hamilton's economic recovery in the immediate aftermath of the COVID-19 pandemic. It has formulated an action driven plan to position the City of Hamilton now, for long-term, sustainable and equitable economic recovery.

WHEREAS, action item 12 of the Mayor's Task Force report stated that the City of Hamilton must find solutions in relation to outdoor space that will create attractive and safe walkable streets;

WHEREAS, action item 67 of the Mayor's Task Force report identified street closures and placemaking projects as actions that could revitalize main streets and support local businesses, attractions and tourism facilities;

WHEREAS, action item 4 of the Mayor's Task Force report identified the need to champion street closures and placemaking projects through all seasons to help revitalize main streets and support local businesses;

WHEREAS, action item 78 identified placemaking an effective way to support the well-being and health of workplaces;

WHEREAS, the Mayor's Task Force report recognized that Hamilton requires an equity-informed economic recovery plan that addresses systemic inequalities including the disproportionate impact on women;

WHEREAS, the Locke Street BIA is composed of 80 active small businesses and approximately 55% of these businesses are female owned or co-owned;

WHEREAS, the Locke Street BIA experienced a disruption of regular business activity with significant lost revenue in year 2019 as a result of the reconstruction of the street;

WHEREAS, most of the federal COVID-19 financial assistance programs for small business used 2019 to calculate the percentage revenue decline for the qualifying periods of 2020/21 in determining the subsidy rate and as such this does not reflect an accurate representation of year over year lost revenue decline caused by the 2019 road reconstruction;

WHEREAS, in the summer of 2020, in response to COVID-19 restrictions, Locke BIA business members closed the street to vehicle traffic on Saturdays in August and September in an effort to support Locke BIA restaurants and retail stores. This effort resulted in increased revenues for small businesses;

WHEREAS, the Locke Street BIA is planning on opening up Locke Street South to pedestrians each Saturday, for 11 Saturdays, for both dining and retail BIA members, in an effort to provide a safe environment and meet COVID-19 restrictions; and,

WHEREAS, the accumulative costs of the closure exceeds the funds available to the Locke Street BIA;

THEREFORE, BE IT RESOLVED:

(a) That $7,000 be provided to the Locke Street Business Improvement Area to help support safe street closures from the Ward 1 Area Rating Capital Reinvestment Discretionary Fund (3302109100); and,

(b) 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 8 to 0, as follows:

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

FOR INFORMATION:

(a) CHANGES TO THE AGENDA (Item 2)

The Committee Clerk advised of the following changes to the agenda:

5. COMMUNICATIONS

5.1 Correspondence from Erin Shacklette respecting Item 9.1 – Proposed Permanent Closure and Sale of a Portion of Road Allowance Abutting 38 Strachan Street West, Hamilton (PW21034) (Ward 2)

Recommendation: Be received and referred to the consideration of Item 9.1

9. PUBLIC HEARINGS / DELEGATIONS

9.1 Proposed Permanent Closure and Sale of a Portion of Road Allowance Abutting 38 Strachan Street West, Hamilton (PW21034) (Ward 2) (deferred from the May 31, 2021 meeting)

9.1(a) Registered Speakers:

9.1(a)(b) Herman Turkstra
9.1(a)(c) Robert Koch, North End Neighbourhood Association

9.2 Proposed Permanent Closure and Sale of a Portion of Public Unassumed Alley Abutting 315B Aberdeen Avenue, Hamilton (PW21041) (Ward 1)

9.2(a) Registered Speakers:

9.2(a)(a) Ian Bannerman
9.2(a)(b) Joanne Bannerman

9.2(a)(c) Kate Lazier
9.2(a)(d) Kevin Daley

12. NOTICES OF MOTION

12.1 Installation of Traffic Calming Measures on Beacon Avenue, Hamilton (Ward 6)

12.2 Installation of Traffic Calming Measures on Moxley Drive, Hamilton (Ward 6)

14. PRIVATE AND CONFIDENTIAL

14.1 HSR Property Update (LS21026/PW21042) (City Wide) **(WITHDRAWN)**

(Ferguson/Nann)
That the agenda for the July 7, 2021 Public Works Committee meeting be approved, as amended.

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

YES - Ward 2 Councillor Jason Farr
YES - Vice Chair - Ward 3 Councillor Nrinder Nann
YES - 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 - Ward 8 Councillor John-Paul Danko
YES - Ward 10 Councillor Maria Pearson
YES - Ward 12 Councillor Lloyd Ferguson
YES - Chair - Ward 13 Councillor Arlene VanderBeek
NOT PRESENT - Ward 14 Councillor Terry Whitehead

(b) DECLARATIONS OF INTEREST (Item 3)

There were no declarations of interest.

(c) APPROVAL OF MINUTES OF THE PREVIOUS MEETING (Item 4)

(i) June 14, 2021 (Item 4.1)

(Pearson/Danko)
That the Minutes of the June 14, 2021 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 - Vice Chair - Ward 3 Councillor Nrinder Nann
YES - Ward 4 Councillor Sam Merulla
NOT PRESENT - Ward 5 Councillor Chad Collins
YES - Ward 6 Councillor Tom Jackson
NOT PRESENT - Ward 7 Councillor Esther Pauls
YES - Ward 8 Councillor John-Paul Danko
YES - Ward 10 Councillor Maria Pearson
YES - Ward 12 Councillor Lloyd Ferguson
YES - Chair - Ward 13 Councillor Arlene VanderBeek
NOT PRESENT - Ward 14 Councillor Terry Whitehead

(d) COMMUNICATIONS (Item 5)

(i) Correspondence from Erin Shacklette respecting Item 9.1 - Proposed Permanent Closure and Sale of a Portion of Road Allowance Abutting 38 Strachan Street West, Hamilton (PW21034) (Ward 2) (Added Item 5.1)

(Pearson/Farr)
That the correspondence from Erin Shacklette respecting Item 9.1 - Proposed Permanent Closure and Sale of a Portion of Road Allowance Abutting 38 Strachan Street West, Hamilton (PW21034) (Ward 2) be received and referred to the consideration of Item 9.1.

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

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

(e) PUBLIC HEARINGS / DELEGATIONS (Item 9)

(i) Proposed Permanent Closure and Sale of a Portion of Road Allowance Abutting 38 Strachan Street West, Hamilton (PW21034) (Ward 2) (deferred from the May 31, 2021 meeting) (Item 9.1)

Councillor VanderBeek advised that notice of the Proposed Permanent Closure and Sale of a Portion of Road Allowance Abutting 38 Strachan Street West, Hamilton (PW21034) (Ward 2) was given as required under the City's By-law #14-204 – the Sale of Land Policy By-law.

The Committee Clerk advised that there were three registered speakers.

Registered Speakers:

1. Sandra Hudson, Friends of Sunset Cultural Garden (Item 9.1(a)(a))

Sandra Hudson, Friends of Sunset Cultural Garden, addressed the Committee with concerns respecting the Proposed Permanent Closure and Sale of a Portion of Road Allowance Abutting 38 Strachan Street West, Hamilton (PW21034) (Ward 2).

2. Herman Turkstra (Added Item 9.1(a)(b))

Herman Turkstra addressed the Committee with concerns respecting the Proposed Permanent Closure and Sale of a Portion of Road Allowance Abutting 38 Strachan Street West, Hamilton (PW21034) (Ward 2).

3. Robert Koch, North End Neighbourhood Association (Added Item 9.1(a)(c))

Robert Koch, North End Neighbourhood Association, addressed the Committee with concerns respecting the Proposed Permanent Closure and Sale of a Portion of Road Allowance Abutting 38 Strachan Street West, Hamilton (PW21034) (Ward 2).

(Farr/Pearson)
That the registered delegations be received.

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

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

(Farr/Pauls)
That the public meeting be closed.

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

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

For further disposition of this matter, refer to Item 2.

(ii) Proposed Permanent Closure and Sale of a Portion of Public Unassumed Alley Abutting 315B Aberdeen Avenue, Hamilton (PW21041) (Ward 1) (Item 9.2)

Councillor VanderBeek advised that notice of the Proposed Permanent Closure and Sale of a Portion of Public Unassumed Alley Abutting 315B Aberdeen Avenue, Hamilton (PW21041) (Ward 1) was given as required under the City's By-law #14-204 – the Sale of Land Policy By-law.

The Committee Clerk advised that there were four registered speakers.

Registered Speakers:

1. Ian Bannerman (Added Item 9.2(a)(a))

Ian Bannerman withdrew.

2. Joanne Bannerman (Added Item 9.2(a)(b))

Joanne Bannerman addressed the Committee with concerns respecting the Proposed Permanent Closure and Sale of a Portion of Public Unassumed Alley Abutting 315B Aberdeen Avenue, Hamilton (PW21041) (Ward 1).

3. Kate Lazier (Added Item 9.1(a)(c))

Kate Lazier addressed the Committee with concerns respecting the Proposed Permanent Closure and Sale of a Portion of Public Unassumed Alley Abutting 315B Aberdeen Avenue, Hamilton (PW21041) (Ward 1).

4. Kevin Daley (Added Item 9.1(a)(d))

Kevin Daley addressed the Committee in support of the Proposed Permanent Closure and Sale of a Portion of Public Unassumed

Alley Abutting 315B Aberdeen Avenue, Hamilton (PW21041) (Ward 1).

(Pauls/Jackson)
That the registered delegations be received.

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

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

(Pearson/Merulla)
That the public meeting be closed.

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

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

For further disposition of this matter, refer to Item 3.

(f) MOTIONS (Item 11)

(i) Purchase of New Mounting Base for Memorial Stone within Fisher Mills Park (Ward 13) (Item 11.8)

Councillor VanderBeek relinquished the Chair to Councillor Danko.

For further disposition of this matter, refer to Item 12.

Councillor VanderBeek assumed the Chair.

(g) NOTICES OF MOTION (Item 12)

Councillor Jackson introduced the following Notice of Motion:

(i) Installation of Traffic Calming Measures on Beacon Avenue, Hamilton (Ward 6) (Added Item 12.1)

WHEREAS, the residents of Beacon Avenue have submitted a 46-page petition for the installation of speed cushions on Beacon Avenue to address roadway safety concerns as a result of speeding, cut-through traffic;

THEREFORE, BE IT RESOLVED:

(a) That Transportation Operations and Maintenance staff be authorized and directed to install traffic calming measures on Beacon Avenue (2 speed cushions) as part of the 2021 Traffic Calming program (Fall Application);

(b) That all costs associated with the installation of traffic calming measures on Beacon Avenue (2 speed cushions) be funded from the Ward 6 Minor Maintenance Account at an upset limit, including contingency, not to exceed $14,000; 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.

Councillor Jackson introduced the following Notice of Motion:

(ii) Installation of Traffic Calming Measures on Moxley Drive, Hamilton (Ward 6) (Added Item 12.2)

WHEREAS, the residents of Moxley Drive have submitted a 45-page petition for the installation of speed cushions on Moxley Drive between Beacon Avenue and Mohawk Road East to address roadway safety concerns as a result of speeding, cut-through traffic;

THEREFORE, BE IT RESOLVED:

(a) That Transportation Operations and Maintenance staff be authorized and directed to install traffic calming measures on Moxley Drive (1 speed cushion) as part of the 2021 Traffic Calming program (Fall Application);

(b) That all costs associated with the installation of traffic calming measures on Moxley Drive (1 speed cushion) be funded from the Ward 6 Minor Maintenance Account at an upset limit, including contingency, not to exceed $7,000; 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.

(h) GENERAL INFORMATION / OTHER BUSINESS (Item 13)

(i) Amendments to the Outstanding Business List (Item 13.1)

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

(a) Items Requiring a New Due Date:

(i) Roadway Safety Measures on Aberdeen Avenue from Queen Street to Longwood Road
Item on OBL: AZ
Current Due Date: July 7, 2021
Proposed New Due Date: September 20, 2021

(ii) Ward 1 Multi-Modal Connections Review
Item on OBL: ABD
Current Due Date: July 7, 2021
Proposed New Due Date: November 1, 2021

(iii) COVID-19 Recovery Phase Mobility Plan
Item on OBL: ABE
Current Due Date: July 7, 2021
Proposed New Due Date: September 20, 2021

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

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

(i) ADJOURNMENT (Item 15)

(Pearson/Farr)
That there being no further business, the Public Works Committee be adjourned at 3:54 p.m.

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

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

Respectfully submitted,

Councillor A. VanderBeek
Chair, Public Works Committee

Alicia Davenport
Legislative Coordinator
Office of the City Clerk

INFORMATION REPORT

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	August 11, 2021
SUBJECT/REPORT NO:	COVID-19 Wastewater Surveillance Initiative (PW21048) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Susan Girt (905) 546-2424 Ext. 2671 Rosemary Eszes-Wegner (905) 546-2424 Ext. 1432 Hector Quintero (905) 546-2424 Ext. 5087
SUBMITTED BY: **SIGNATURE:**	Andrew Grice Director, Hamilton Water Public Works Department 

COUNCIL DIRECTION

Not Applicable

INFORMATION

This report provides a brief summary of the City of Hamilton's (City) ongoing effort to support COVID-19 wastewater surveillance and ongoing research aimed at measuring COVID-19 indicators in wastewater as a potential early indicator to help determine COVID-19 activity in the community. A listing of findings so far is documented and attached as Appendix "A" to Report PW21048.

Studies have shown that a significant proportion of people with active COVID-19 infections shed the coronavirus (called SARS-CoV-2) in their stool, sometimes even before their symptoms start. This allows for centralized measuring of the level of the coronavirus genetic material (known as RNA), which can help shed light on the number of infected people in Hamilton.

Thanks to this innovative research at Children's Hospital of Eastern Ontario Research Institute (CHEO-RI) and the University of Ottawa, we are one of the first communities in

Canada to participate in monitoring of wastewater looking for indicators of the SARS-CoV-2 virus. It is also important to note that for a number of reasons, there is some variability in the data and researchers and engineers are working on improving the Polymerase Chain Reaction (PCR) methodology. Some of the reasons for this variability include: the level of virus in stool may be fairly low; the actual number of people with COVID-19 may be quite low in relation to the total population; and wastewater is a harsh environment which can break down the virus and may break down the viral RNA resulting in lower readings. Nonetheless, ongoing research has observed some correlation with other established COVID-19 measures.

In May 2020, Hamilton Water began supporting this research by providing samples from the Woodward Wastewater Treatment Plant. This support continues to date at a frequency of four (4) times a week. In December 2020, Hamilton Water expanded scope of monitoring by collecting wastewater at sampling sites near two (2) long term care facilities (LTCF). The program focus shifted in May 2021 to explore the feasibility of a larger scale neighbourhood monitoring.

In June 2021, Hamilton Water and the University of Ottawa partnered with Unity Health in Toronto as part of the Government of Canada COVID-19 Immunity Task Force (CITF). The mandate of this task force is to help determine the extent of SARS-CoV-2 infection in Canada. Hamilton Water is providing wastewater samples from one (1) long term care facility in the sewershed.

Hamilton Water also formed a partnership with McMaster University and began freezing/storing samples in September 2020. McMaster had decided to take an alternate route and look for the presence of the live virus, as well as develop an artificial intelligence application that was hoped to be able to predict outbreaks based on changes in routine process control data. This line of research was put on hold in December 2020 when the Ministry of Environment, Conservation and Parks (MECP) unveiled its Wastewater Surveillance Program. The three (3) universities who had developed PCR methods were asked to bring 10 other universities, including McMaster University, on board with PCR analysis of wastewater. Hamilton Water began supplying McMaster University with samples in December 2020 to aid in their PCR method development and verification. McMaster’s project was put on hold in April 2021.

The Ontario government is investing more than $12 million in the Wastewater Surveillance Program to detect COVID-19 in wastewater. The province has partnered with 13 academic and research institutions to create a surveillance network to test wastewater samples taken from communities across Ontario. This has the potential to enhance the ability of local public health units to identify, monitor and manage potential COVID-19 outbreaks.

The provincial funding builds on work already underway in several municipalities. Wastewater sampling for the early detection of COVID-19 is taking place in Ottawa, Windsor, Toronto, Casselman, Hamilton and London, as well as the Region of Peel, York Region, Durham Region, Region of Waterloo, and Essex County.

The province is also expanding testing to include some First Nation communities, long-term care homes, retirement residences, shelters and correctional facilities.

Innovative methods for detecting early signs of COVID-19 infections in our communities is an excellent example of the applications of fundamental science. This investment by the provincial government clearly demonstrates its commitment to using Ontario-based scientific strengths.

A component of the MECP surveillance initiative is to develop and support a Data and Visualization Hub as an integrated space available to participants in the Wastewater Surveillance Initiative. The goal of the Data and Visualization Hub is to provide users with easily accessible information related to wastewater surveillance data and to help public health units make complex public health decisions required for the ongoing management of COVID-19.

Conclusion

Wastewater based measurement has been used in recent years to monitor the presence of drugs or disease agents in communities across the globe.

Collaborating with City of Hamilton Public Health, University of Ottawa and CHEO-RI; Hamilton Water embarked in a new journey to explore using wastewater data as a tool to potentially assist Public Health authorities in decision-making and potentially serve as an early warning for subsequent COVID-19 waves of illness in our community.

Coronavirus detection in sewage has the potential to serve as an indicator that is independent of healthcare-seeking behaviours and access to clinical testing. Data from wastewater testing is not meant to replace existing COVID-19 surveillance systems; instead they are meant to complement them.

APPENDICES AND SCHEDULES ATTACHED

Appendix “A” to Report PW21048 - Results from Wastewater SARS-COV-2 Monitoring

TO: Andrew Grice, Rosemary Eszes and Lien Dang

DATE: Monday, July 12, 2021

FROM: Robert Delatolla, Xin Tian, Patrick M. D'Aoust, Élisabeth Mercier, Alex MacKenzie, Tyson Graber

Department of Civil Engineering, University of Ottawa & Children's Hospital of Eastern Ontario – Research Institute

DISCLAIMER: The information and results are performed for research purposes, with action and dissemination at the discretion of the City of Hamilton.

REPORT COMPILED ON 7/12/2021 10:46 PM

RE: RESULTS FROM WASTEWATER SARS-COV-2 MONITORING

Purpose

This research data set is generated to track SARS-CoV-2 signal at the Hamilton wastewater treatment plant to the City of Hamilton. Trends relating to the sewer effluent from the Willowgrove LTCH are also shown below. This information is generated in an attempt to support efforts to control and placate COVID-19 infections in the community. Note that at this time an understanding of appropriate units for SARS-CoV-2 signal at the facility level is still being studied for better representation of the prevalence in the facility.

Investigation Summary:

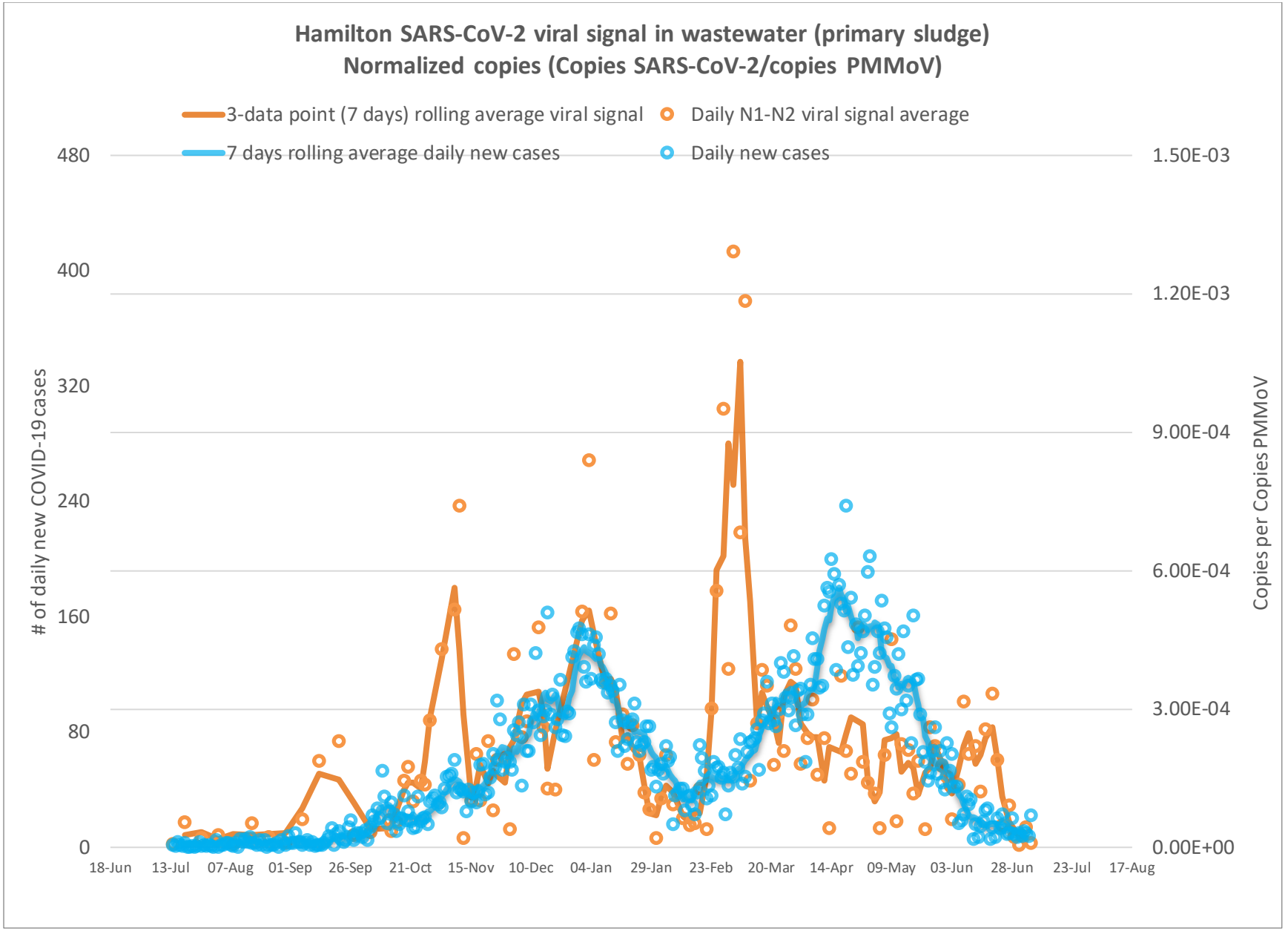
- General trends of COVID-19 wastewater viral signal is fluctuating at a relatively low level.
- Predictive values of wastewater viral signal data will not be reported due to limitations and uncertainties at this time with respect to varying fecal shedding periods in patients and unreported active cases in the community.
- B.1.1.7 (a.k.a. UK variant) was not detected in primary sludge samples from Jul 4th and Jul 6th through monitoring by RT-PCR.

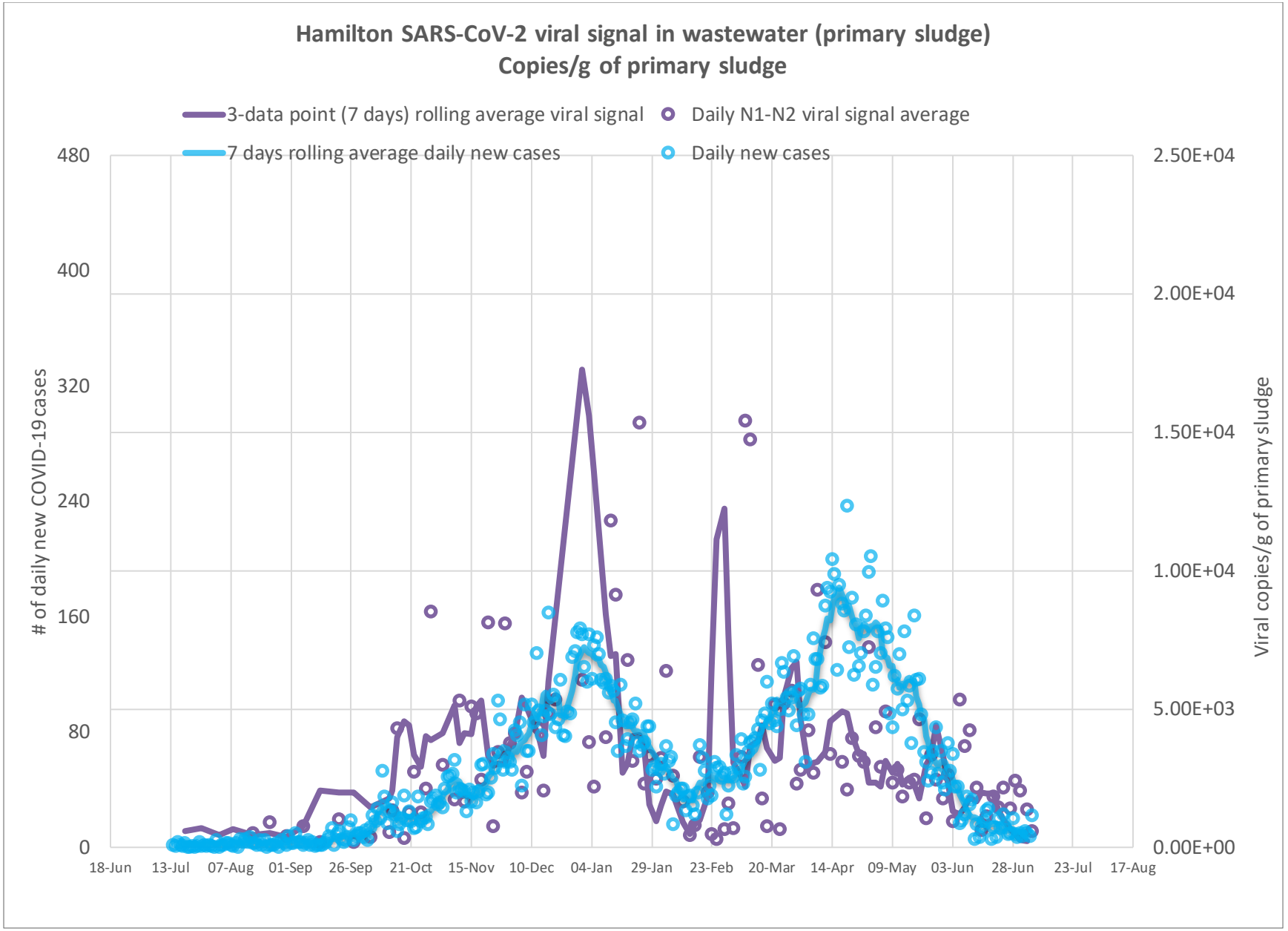
Quality Control:

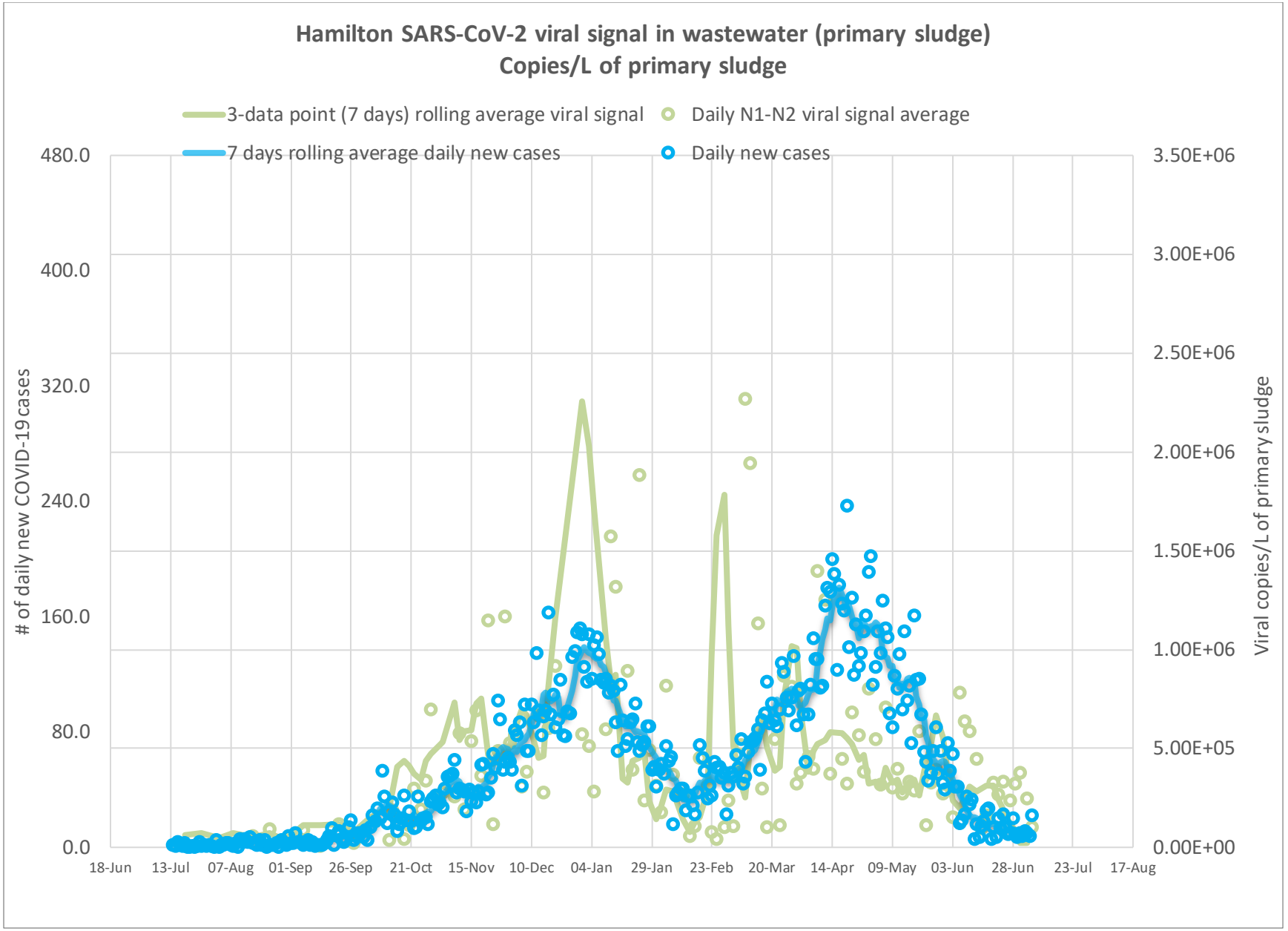
☒ Standard curves $R^2 \geq 0.95$.

☒ Primer efficiency between 90%-130%.

☒ No template controls are negative.


Hamilton SARS-CoV-2 viral signal in wastewater (primary sludge)
Normalized copies (Copies SARS-CoV-2/copies PMMoV)
3-data point (7 days) rolling average viral signal
Daily N1-N2 viral signal average
7 days rolling average daily new cases
Daily new cases
# of daily new COVID-19 cases
Copies per Copies PMMoV
480
400
320
240
160
80
0
1.50E-03
1.20E-03
9.00E-04
6.00E-04
3.00E-04
0.00E+00
18-Jun
13-Jul
07-Aug
01-Sep
26-Sep
21-Oct
15-Nov
10-Dec
04-Jan
29-Jan
23-Feb
20-Mar
14-Apr
09-May
03-Jun
28-Jun
23-Jul
17-Aug


Hamilton SARS-CoV-2 viral signal in wastewater (primary sludge)
Copies/g of primary sludge
3-data point (7 days) rolling average viral signal
Daily N1-N2 viral signal average
7 days rolling average daily new cases
Daily new cases
# of daily new COVID-19 cases
Viral copies/g of primary sludge
480
400
320
240
160
80
0
2.50E+04
2.00E+04
1.50E+04
1.00E+04
5.00E+03
0.00E+00
18-Jun
13-Jul
07-Aug
01-Sep
26-Sep
21-Oct
15-Nov
10-Dec
04-Jan
29-Jan
23-Feb
20-Mar
14-Apr
09-May
03-Jun
28-Jun
23-Jul
17-Aug


Hamilton SARS-CoV-2 viral signal in wastewater (primary sludge)
Copies/L of primary sludge
3-data point (7 days) rolling average viral signal
Daily N1-N2 viral signal average
7 days rolling average daily new cases
Daily new cases
480.0
400.0
320.0
240.0
160.0
80.0
0.0
# of daily new COVID-19 cases
3.50E+06
3.00E+06
2.50E+06
2.00E+06
1.50E+06
1.00E+06
5.00E+05
0.00E+00
Viral copies/L of primary sludge
18-Jun
13-Jul
07-Aug
01-Sep
26-Sep
21-Oct
15-Nov
10-Dec
04-Jan
29-Jan
23-Feb
20-Mar
14-Apr
09-May
03-Jun
28-Jun
23-Jul
17-Aug

WOODWARD WWTP MONITORING – PRIMARY SLUDGE SAMPLE

Sample Date	Avg N1-N2 raw copies	N1 - N2 Avg. normalized signal (copies/copies of PMMoV)	N1-N2 copies/g wastewater solids	N1-N2 copies/L wastewater solids
14-Jul	1.94	0.000007	504.72	58142.9
19-Jul	3.76	0.000054	900.60	91818.1
26-Jul	1.12	0.000019	398.03	38561.8
02-Aug	4.22	0.000027	780.59	89435.7
08-Aug	1.51	0.000007	185.17	9465.2
16-Aug	5.61	0.000053	999.38	117017.1
23-Aug	1.01	0.000023	193.11	22980.4
30-Aug	1.37	0.000010	379.87	N/A
06-Sep	1.90	0.000060	536.17	36936.6
13-Sep	5.95	0.000187	1336.60	185633.6
21-Sep	17.79	0.000231	4289.54	N/A
27-Sep	0.96	0.000026	338.33	44526.4
04-Oct	6.62	0.000033	1268.78	114412.4
12-Oct	9.25	0.000059	2741.08	299250.3
13-Oct	4.96	0.000036	1252.47	193607.2
15-Oct	10.60	0.000053	2127.83	336112.1
18-Oct	36.60	0.000144	8533.42	698630.8
20-Oct	14.58	0.000175	2970.37	279556.1
22-Oct	10.34	0.000100	1715.52	257241.6
25-Oct	23.61	0.000144	5318.22	578848.7
27-Oct	8.29	0.000136	1676.42	193726.6
29-Oct	15.89	0.000276	5096.02	536368.8
03-Nov	25.90	0.000430	4831.61	690993.4
08-Nov	9.68	0.000516	2455.23	364742.2
10-Nov	29.73	0.000741	8128.34	1148696.3
12-Nov	5.50	0.000021	764.72	119519.8
15-Nov	19.85	0.000101	3439.82	488265.7
17-Nov	28.07	0.000203	8079.08	1166073.3
19-Nov	19.29	0.000102	3765.32	529535.7

22-Nov	18.25	0.000230	4116.12	569217.9
24-Nov	7.96	0.000081	1982.72	308124.0
26-Nov	17.30	0.000190	2720.19	384723.2
29-Nov	19.90	0.000194	4303.69	665823.4
01-Dec	7.23	0.000040	2039.39	278020.2
03-Dec	24.06	0.000420	4837.13	601582.3
06-Dec	18.98	0.000239	5323.59	917121.7
08-Dec	19.11	0.000274	6053.05	571225.9
13-Dec	21.39	0.000478	3801.31	510677.5
15-Dec	7.35	0.000261	2179.72	281663.4
17-Dec	15.67	0.000098	3966.94	596816.2
20-Dec	30.33	0.000125	11811.80	1574218.1
31-Dec	37.71	0.000512	9132.87	1319471.3
03-Jan	127.93	0.000840	30835.70	3873734.4
05-Jan	26.02	0.000189	6769.62	891846.6
10-Jan	16.62	0.000357	3113.80	392004.5
12-Jan	58.33	0.000508	15351.38	1883384.0
14-Jan	8.79	0.000228	2308.66	236458.4
17-Jan	12.58	0.000288	3303.30	493141.3
19-Jan	9.86	0.000180	2470.60	313093.5
21-Jan	12.41	0.000265	3231.37	178056.5
24-Jan	23.95	0.000201	6379.54	817044.1
26-Jan	9.79	0.000119	2592.74	369044.1
28-Jan	6.28	0.000082	1648.65	266105.0
31-Jan	1.67	0.000021	430.57	57958.7
02-Feb	3.08	0.000106	804.54	109730.6
04-Feb	12.46	0.000200	3283.82	451919.4
07-Feb	7.64	0.000094	1980.16	310618.1
11-Feb	1.80	0.000062	467.15	77172.6
14-Feb	1.13	0.000047	297.61	44424.2
16-Feb	2.48	0.000052	660.78	104178.0
18-Feb	6.03	0.000128	1587.86	238734.6
21-Feb	2.61	0.000039	682.55	108998.8
23-Feb	12.31	0.000300	3261.60	517859.8
25-Feb	58.56	0.000555	15400.96	2270140.5

28-Feb	55.57	0.000951	14735.99	1943088.1
02-Mar	25.31	0.000386	6607.64	1131244.2
04-Mar	6.65	0.001291	1768.71	298333.5
07-Mar	2.93	0.000682	780.14	100970.1
09-Mar	19.34	0.001185	5156.62	549180.5
11-Mar	2.49	0.000144	645.94	114191.3
14-Mar	19.71	0.000270	5212.65	869131.8
16-Mar	21.71	0.000385	5663.66	814236.3
18-Mar	8.90	0.000351	2310.35	324315.7
21-Mar	10.67	0.000179	2796.88	377816.3
23-Mar	16.31	0.000292	4245.18	456335.8
25-Mar	10.27	0.000209	2688.81	395168.4
28-Mar	35.55	0.000482	9319.46	1398129.1
30-Mar	28.72	0.000388	7403.97	1255269.1
01-Apr	12.76	0.000182	3386.20	372879.4
04-Apr	11.76	0.000237	3091.84	449607.6
06-Apr	7.97	0.000321	2084.54	323562.3
08-Apr	15.19	0.000157	3948.61	683326.7
11-Apr	12.44	0.000237	3285.96	567263.2
13-Apr	11.85	0.000042	3073.96	383115.9
18-Apr	27.60	0.000371	7251.03	801891.0
20-Apr	16.97	0.000208	4356.62	546951.4
22-Apr	11.03	0.000160	2900.88	315579.1
25-Apr	18.69	0.000477	4922.30	708073.5
27-Apr	8.86	0.000186	2331.89	300317.7
29-Apr	10.86	0.000140	2817.48	398328.1
02-May	7.18	0.000117	1848.85	271327.6
04-May	8.86	0.000042	2332.34	332136.8
06-May	9.27	0.000201	2450.87	286218.8
09-May	17.57	0.000452	4624.85	589333.2
11-May	3.91	0.000057	1040.17	109977.2
13-May	12.72	0.000224	3335.17	325996.2
16-May	9.50	0.000211	2436.56	394710.4
18-May	6.82	0.000118	1768.53	269851.3
20-May	10.62	0.000186	2624.89	365273.2

23-May	3.59	0.000040	943.23	151883.7
25-May	20.28	0.000260	5330.34	784266.1
27-May	13.99	0.000220	3678.24	637273.4
30-May	15.87	0.000177	4225.69	588426.7
01-Jun	8.28	0.000153	2142.74	446987.0
03-Jun	4.75	0.000062	611.53	96151.8
06-Jun	8.60	0.000137	1122.88	164748.8
08-Jun	14.17	0.000317	1827.29	325120.4
10-Jun	10.81	0.000204	1433.45	269039.8
13-Jun	16.33	0.000220	2145.90	331648.2
15-Jun	10.71	0.000122	1420.89	238837.5
17-Jun	18.78	0.000256	2410.18	320770.2
20-Jun	15.81	0.000334	2043.23	375014.1
22-Jun	10.45	0.000190	1361.27	247784.3
24-Jun	4.31	0.000049	573.59	101302.5
27-Jun	8.79	0.000091	1153.71	223689.6
29-Jun	1.76	0.000023	234.39	25021.5
01-Jul	**0.48**	**0.000004**	**63.21**	**10129.4**
04-Jul	3.76	0.000044	483.05	32554.5
06-Jul	**0.98**	**0.000009**	**129.11**	**23619.7**

Bold number in red font: below the limit of detection

NEIGHBOURHOOD MONITORING LOCATION - HAMILTON

Sample Date	Avg N1-N2 raw copies	N1-N2 Avg. normalized (copies/copies of PMMoV)	N1-N2 copies/g wastewater solids
18-May	Below the limit of detection		
19-May	7.86	0.00010	2053.34
20-May	16.31	0.00028	4211.77
25-May	4.57	0.00008	1191.69
26-May	5.46	0.00012	1401.81
27-May	3.70	0.00011	971.90
28-May	4.46	0.00007	1176.76
01-Jun	17.01	0.00059	4460.96
02-Jun	31.16	0.00052	8016.49
03-Jun	3.54	0.00012	462.60
08-Jun	21.51	0.00070	2824.25
09-Jun	2.49	0.00021	329.48
10-Jun	10.38	0.00082	1358.50
11-Jun	13.09	0.00083	1698.23
14-Jun	Below the limit of detection		
15-Jun	Below the limit of detection		
16-Jun	Below the limit of detection		
17-Jun	26.04	0.00094	3441.22
18-Jun	6.80	0.00028	892.61
22-Jun	8.35	0.00039	1090.13
23-Jun	8.22	0.00023	N/A*
25-Jun	4.11	0.00034	534.76
26-Jun	3.47	0.00011	447.01
27-Jun	2.28	0.00005	298.41
28-Jun	4.20	0.00009	558.88
30-Jun	Below the limit of detection		
01-Jul	Below the limit of detection		
02-Jul	Below the limit of detection		
06-Jul	Below the limit of detection		
07-Jul	Below the limit of detection		

N/A* (on Jun 23): not enough pellet to quantify.

LONG TERM CARE MONITORING - Facility #1

Sample Date	ID	Avg N1-N2 raw copies	N1-N2 Avg. normalized (copies/copies of PMMoV)	N1-N2 copies/g wastewater solids
2–Dec	Upstream (Site 1)	27.83	0.00017	7212.79
12–Dec	Upstream (Site 1)	31.51	0.003605	8117.91
14-Dec	Upstream (Site 1)	63.72	0.010895	15111.6
16-Dec	Upstream (Site 1)	35.32	0.00972	8263.82
5-Jan	Upstream (Site 1)	57.11	0.01104	14796.9
6-Jan	Upstream (Site 1)	27.27	0.013302	7120.1
8-Jan	Upstream (Site 1)	6.17	0.02363	1611.52
13-Jan	Upstream (Site 1)	13.11	0.002261	3395.43
14-Jan	Upstream (Site 1)	2.71	0.000161	703.23
19-Jan	Upstream (Site 1)	10.65	0.000013	2782.08
20-Jan	Upstream (Site 1)	25.46	0.000031	6603.29
22-Jan	Upstream (Site 1)	0.51	0.000002	134.83
26-Jan	Upstream (Site 1)	18.58	0.000369	4800.4
27-Jan	Upstream (Site 1)	114.76	0.000919	30603.01
29-Jan	Upstream (Site 1)	3.20	0.000482	846.38
2-Feb	Upstream (Site 1)	47.95	0.000900	12171.92
3-Feb	Upstream (Site 1)	172.96	0.001242	44970.51
9-Feb	Upstream (Site 1)	11.82	0.000123	3133.57
10-Feb	Upstream (Site 1)	11.89	0.000298	3061.75
12-Feb	Upstream (Site 1)	2.51	0.000063	368.75
13-Feb	Upstream (Site 1)	5.19	0.000063	1168.50
19-Feb	Upstream (Site 1)	4.49	0.000003	2995.91

20-Feb	Upstream (Site 1)	14.94	0.000014	3948.57
23-Feb	Upstream (Site 1)	309.76	0.002944	79456.74
25-Feb	Upstream (Site 1)	5.53	0.000088	1436.44
26-Feb	Upstream (Site 1)	2.79	0.000014	739.73
2-Mar	Upstream (Site 1)	3.25	0.000046	833.95
3-Mar	Upstream (Site 1)	55.63	0.000211	14818.17
4-Mar	Upstream (Site 1)	Below the limit of detection		
9-Mar	Upstream (Site 1)	11.47	0.000477	3058.25
10-Mar	Upstream (Site 1)	4.99	0.000182	1314.99
11-Mar	Upstream (Site 1)	Below the limit of detection		
16-Mar	Upstream (Site 1)	16.79	0.001556	4390.24
17-Mar	Upstream (Site 1)	19.42	0.002781	4997.86
18-Mar	Upstream (Site 1)	No detection		
24-Mar	Upstream (Site 1)	4.38	0.001342	1144.03
25-Mar	Upstream (Site 1)	No detection		
26-Mar	Upstream (Site 1)	No detection		
30-Mar	Upstream (Site 1)	77.65	0.006293	20246.27
31-Mar	Upstream (Site 1)	7.25	0.000423	1886.94
1-Apr	Upstream (Site 1)	3.84	0.000139	1005.8
6-Apr	Upstream (Site 1)	7.66	0.000506	1978.69
7-Apr	Upstream (Site 1)	101.01	0.022237	26325.43
8-Apr	Upstream (Site 1)	30.76	0.002274	8102.24
13-Apr	Upstream (Site 1)	38.86	0.000952	10006.62
14-Apr	Upstream (Site 1)	54.07	0.009377	13950.9
15-Apr	Upstream (Site 1)	44.29	0.004357	11470.6
20-Apr	Upstream (Site 1)	53.96	0.000748	13975.5

21-Apr	Upstream (Site 1)	36.22	0.001735	9403.4
22-Apr	Upstream (Site 1)	0.84	0.000325	215.3
27-Apr	Upstream (Site 1)	2.80	0.000112	727.6
28-Apr	Upstream (Site 1)	No sample collected		
29-Apr	Upstream (Site 1)	1.83	0.000341	478.7
30-Apr	Upstream (Site 1)	4.64	0.001281	1233.3
4-May	Upstream (Site 1)	7.70	0.002218	2031.8
6-May	Upstream (Site 1)	9.37	0.000691	2408.62
7-May	Upstream (Site 1)	Not enough solids to quantity		

Sample Date	**ID**	**Avg N1-N2 raw copies**	**N1-N2 Avg. normalized (copies/copies of PMMoV)**	**N1-N2 copies/g wastewater solids**
2-Dec	Downstream (Site 2)	52.07	0.001786	12098.98
14-Dec	Downstream (Site 2)	73.65	0.000014	16477.3
16-Dec	Downstream (Site 2)	47.88	0.000144	21449.89
18-Dec	Downstream (Site 2)			
21-Dec	Downstream (Site 2)	140.65	0.004435	30855.4
5-Jan	Downstream (Site 2)	22.82	0.000783	5891.076
6-Jan	Downstream (Site 2)	8.4	0.001291	2213.12
8-Jan	Downstream (Site 2)	8.82	0.001775	2321.7
13-Jan	Downstream (Site 2)			
14-Jan	Downstream (Site 2)	1.97	0.000104	521.95
19-Jan	Downstream (Site 2)	46.01	0.000233	11969.04
20-Jan	Downstream (Site 2)	134.25	0.000171	35572.18
22-Jan	Downstream (Site 2)	2.57	0.000035	683.7
26-Jan	Downstream (Site 2)	20.22	0.000477	5376.79

27-Jan	Downstream (Site 2)	119.12	0.003493	31117.88
29-Jan	Downstream (Site 2)	3.86	0.000741	1027.87
2-Feb	Downstream (Site 2)			
3-Feb	Downstream (Site 2)	733.70	0.022215	194177.15
4-Feb	Downstream (Site 2)	63.43	0.001900	16408.27
9-Feb	Downstream (Site 2)	21.50	0.042731	5624.70
12-Feb	Downstream (Site 2)	2.27	0.000013	426.97
13-Feb	Downstream (Site 2)	5.49	0.000017	1688.76
19-Feb	Downstream (Site 2)	4.15	0.000009	1063.78
20-Feb	Downstream (Site 2)	19.14	0.000022	12758.03
23-Feb	Downstream (Site 2)	38.17	0.000051	9805.97
24-Feb	Downstream (Site 2)	36.49	0.000111	9829.84
25-Feb	Downstream (Site 2)	1.30	0.000007	343.24
2-Mar	Downstream (Site 2)	21.70	0.000227	5686.49
3-Mar	Downstream (Site 2)	48.68	0.000246	12598.96
4-Mar	Downstream (Site 2)	Below the limit of detection		
9-Mar	Downstream (Site 2)	4.82	0.000052	1270.66
10-Mar	Downstream (Site 2)	11.91	0.000183	3166.73
11-Mar	Downstream (Site 2)	Below the limit of detection		
16-Mar	Downstream (Site 2)	15.41	0.000969	4079.65
17-Mar	Downstream (Site 2)	67.84	0.001641	18053.56
18-Mar	Downstream (Site 2)	No detection		
24-Mar	Downstream (Site 2)	41.18	0.003434	10720.11
25-Mar	Downstream (Site 2)	No detection		
26-Mar	Downstream (Site 2)	No detection		
30-Mar	Downstream (Site 2)	97.08	0.000954	25449.75

31-Mar	Downstream (Site 2)	21.62	0.001253	5671.96
1-Apr	Downstream (Site 2)	52.55	0.00081	13726.8
6-Apr	Downstream (Site 2)	24.27	0.000658	6418.89
7-Apr	Downstream (Site 2)	79.33	0.001779	20586.24
8-Apr	Downstream (Site 2)	45.69	0.002154	11737.9
13-Apr	Downstream (Site 2)	46.95	0.002345	12122.66
14-Apr	Downstream (Site 2)	75.89	0.009836	19732.46
15-Apr	Downstream (Site 2)	98.45	0.004605	25320.25
20-Apr	Downstream (Site 2)	99.68	0.007897	25638.77
21-Apr	Downstream (Site 2)	119.72	0.004617	31043.94
22-Apr	Downstream (Site 2)	38.35	0.014504	9991.83
27-Apr	Downstream (Site 2)	8.59	0.000238	2289.97
28-Apr	Downstream (Site 2)	84.28	0.006442	21810.89
29-Apr	Downstream (Site 2)	5.90	0.000875	1572.74
30-Apr	Downstream (Site 2)	6.32	0.000351	1628.12
4-May	Downstream (Site 2)	71.85	0.004496	18925.91
6-May	Downstream (Site 2)	20.86	0.000971	5435.3
7-May	Downstream (Site 2)	39.99	0.002901	10301.14

LONG TERM CARE MONITORING - Facility #2

Sample Date	**Avg N1-N2 raw copies**	**N1-N2 Avg. normalized (copies/copies of PMMoV)**	**N1-N2 copies/g wastewater solids**
19-Jan	34.98	0.000347	9080.38
20-Jan	147.57	0.000615	38369.93
22-Jan	33.30	0.000644	8603.41

26-Jan	90.61	0.001205	26763.58
27-Jan	31.79	0.001966	8221.39
29-Jan	1.35	0.001836	349.41
02-Feb	102.03	0.002853	27077.23
03-Feb	213.27	0.008835	56241.54
05-Feb	1.39	0.000058	363.66
10-Feb	3.99	0.000233	1058.07
13-Feb	Below the limit of detection		
12-Feb	18.09	0.000049	4795.52
13-Feb	13.29	0.000362	3470.80
26-Feb	4.49	0.000045	1162.64
27-Feb	4.22	0.000126	1086.39
02-Mar	17.75	0.000643	4715.32
03-Mar	8.09	0.000964	2085.80
04-Mar	12.04	0.000088	3130.66
09-Mar	8.03	0.001815	2124.17
10-Mar	Below the limit of detection		
11-Mar	11.63	0.001636	3019.52
16-Mar	21.24	0.008824	5537.12
17-Mar	4.00	0.001639	1054.51
18-Mar	6.24	0.007382	1638.49
23-Mar	7.73	0.005502	2034.40
24-Mar	17.27	0.015105	4477.02
25-Mar	4.35	0.000246	1142.18
30-Mar	52.80	0.017554	13689.99
31-Mar	16.60	0.001704	4403.23

01-Apr	Non detected		
06-Apr	Non detected		
08-Apr	4.32	0.007876	1129.58
13-Apr	1.75	0.000098	459.87
14-Apr	6.21	0.001811	1634.74
15-Apr	1.98	0.000171	510.62
20-Apr	14.78	0.006802	3859.18
21-Apr	37.45	0.018861	9609.96
22-Apr	Non detected		
27-Apr	2.58	0.000810	669.88
28-Apr	9.58	0.008584	2542.75
29-Apr	Non detected		
04-May	19.51	0.013494	5181.95
05-May	3.28	0.002612	872.34
06-May	Non detected		
12-May	1.45	0.000476	372.66
13-May	3.71	0.001332	952.20
14-May	7.08	0.001319	1825.07
21-May	Non detected		
25-May	Below the limit of detection		
26-May	Below the limit of detection		
27-May	Non detected		
01-Jun	9.38	0.001762	2419.08
02-Jun	Below the limit of detection		
03-Jun	13.90	0.007890	1808.70
08-Jun	Below the limit of detection		

LONG TERM CARE MONITORING - Facility #3 (CITF)

Sample Date	Avg N1-N2 raw copies	N1-N2 Avg. normalized (copies/copies of PMMoV)	N1-N2 copies/g wastewater solids
06-Jul	14.09	0.00574	3736.24
07-Jul	46.59	0.12113	12224.12

Hamilton

INFORMATION REPORT

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	August 11, 2021
SUBJECT/REPORT NO:	Old Dundas Road Sewage Pumping Station (HC005) Emergency Overflow to Ancaster Creek Feasibility Study (PW14107(a)) (Ward 12)
WARD(S) AFFECTED:	Ward 12
PREPARED BY:	Sharon McPherson-Nemeth (905) 546-2424 Ext. 2087
SUBMITTED BY: **SIGNATURE:**	Mark Bainbridge Director, Water and Wastewater Planning and Capital Public Works Department 

COUNCIL DIRECTION

At the Public Works Committee meeting of September 15, 2014, the following was approved: “That the General Manager, Public Works, be authorized and directed to proceed with the Emergency Overflow Schedule “C” Municipal Class Environmental Assessment.”

INFORMATION

This report provides an update on the basement flooding protection measures assessed through a Municipal Class Environmental Assessment (EA) for the Old Dundas Road (HC005) Sewage Pumping Station. Through EA recommended capital improvements and inflow and infiltration reductions in the sanitary sewer system, a 1:100-year storm level of basement flood protection is expected in the future and subsequently, an emergency overflow is not recommended. Project details are discussed throughout the remainder of this report.

In 2015, the Old Dundas Road Sewage Pumping Station (HC005) Wet Weather Relief Master Plan and Class EA Study was completed to find a solution to alleviate basement flooding in the pumping station catchment area during wet weather events. The completion of the study included four (4) preferred alternative solutions:

1. Construction of an Underground Inline Storage Facility
2. Reduction of Inflow/Infiltration in the Public Property Works
3. Removal of Sources of Private Property Inflows
4. Provision of an Emergency Overflow to Ancaster Creek

Collectively, the first three (3) alternatives provide in excess of a 100-year level of flood protection against basement flooding for the study area. The fourth option, if implemented, would provide relief to homeowners that experience flooding during storms which exceed the 100-year level.

Upon completion of the 2015 Master Plan and Class EA Study, the Ministry of Environment, Conservation and Parks (MECP) received seven (7) Part II Orders relating specifically to the emergency overflow project requesting that the City of Hamilton (City) be required to prepare an individual environmental assessment (EA). The MECP denied all seven (7) Part II Order requests due to the emergency overflow project being incomplete at the time of the Master Plan filing since it still required completion of Phase 3 and Phase 4 of the Municipal Class EA Process.

Since completion of the 2015 Master Plan and Class EA Study, the following preferred alternatives were implemented:

- The majority of works identified to reduce inflow and infiltration from public properties were completed in 2016 (only two (2) Old Dundas Road sanitary pipe segments remain which are scheduled for grouting and lining in 2021); and,
- An underground inline storage facility was constructed on Montgomery Drive in 2018.

To evaluate the effectiveness of the implemented works, follow up flow monitoring and modelling analysis were completed in 2019. The results indicate that hydraulic conditions within the sewershed have improved significantly. At present, a plan to remove sources of inflows from private properties, a very cost-effective solution to flooding, is forthcoming.

In 2016, Hamilton Water commenced a Schedule ‘C’ Municipal Class EA to complete Phase 3 and Phase 4 of the Municipal Class EA Process to determine the location and design of an emergency overflow to Ancaster Creek, the fourth preferred alternative from the 2015 Master Plan and Class EA Study. In 2017, based on recommendations

from MECP, Hamilton Conservation Authority (HCA) and Niagara Escarpment Commission (NEC), an extensive field work program commenced to determine baseline flows, water quality conditions and the hydraulic/hydrologic conditions in the study area to aid in the design of the new emergency overflow pipe. The "Do Nothing" alternative as well as two (2) types of emergency overflow designs were evaluated including the following:

- Emergency Overflow with Treatment - A long linear filtration system, installed within the road right of way including a wetland feature for filtration and perforated pipes to encourage infiltration of partially treated wastewater, that would discharge into Ancaster Creek; and,
- Emergency Overflow without Treatment - Sanitary flow would be directly discharged into the Ancaster Creek to prevent surcharging.

The evaluation was based on a list of criteria including cost, ability to alleviate sewage backup to homes, impacts to fisheries and natural environment, and effects to community and recreation.

In 2020, the Municipal Class EA Emergency Sanitary Overflow to Ancaster Creek Study was concluded and the "Do Nothing" alternative was chosen as the preferred solution. In essence, the Municipal Class EA process was abandoned for this project and the study findings were documented through a feasibility report attached as Appendix "A" to Report PW14107(a). It was determined there was no reasonable plan that would be approved by the MECP mainly due to the following reasons:

- Constructability concerns exist due to a hydraulic constraint in the proposed discharge area as the existing storm sewer in the vicinity of the overflow is significantly submerged during flood events resulting in potential backflow into the overflow pipe;
- Utility conflicts present for the "Emergency Overflow with Treatment" option;
- Provincial agencies expressed their concerns:
    - The overall purpose and objectives of the Niagara Escarpment Plan is to maintain and enhance the quality and character of natural streams and water supplies, therefore, the NEC were opposed to the overflow since the subject area is designated Escarpment Protection Area in the Niagara Escarpment Plan and discharge from the overflow would result in the contamination of the stream thereby degrading the quality of water representing a possible threat to fish and wildlife stocks downstream
    - HCA was in objection to the overflow since the development could adversely affect a significant fishery resource
- An emergency overflow pipe to Ancaster Creek would discharge to Cootes Paradise. This discharge would be in opposition to the new Canada-Ontario

Agreement on Great Lakes Water Quality and Ecosystem Health which incudes the promotion of infrastructure planning and eligible investments that support the reduction of excess nutrients from point sources such as municipal wastewater treatment systems, including overflows as well as enhanced environmental protection policies related to sewage overflows;

- The overt opposition that Hamilton Water received from area residents who in 2015 issued seven (7) Part II Orders specific to the implementation of an emergency overflow; and,
- Hamilton Water is leading various initiatives focused on total combined sewer overflow reduction. The introduction of a new sewage pumping station emergency overflow would be contrary to this endeavor.

In consideration of all the above noted points, allowing the spillage of raw sewage into a tributary of Cootes Paradise and Hamilton Harbour seems counterproductive considering the expenses incurred in restoring these areas and such a project could be harmful to the City's reputation for environmental stewardship. In addition, recent capital works implemented upon completion of the 2015 Master Plan and Class EA Study, including construction of the inline storage pipe and implementation of inflow and infiltration reduction solutions, are expected to provide a level of service in the study area above that of other areas in Hamilton.

APPENDICES AND SCHEDULES ATTACHED

Appendix "A" to Report PW14107(a) - Old Dundas Road Sewage Pumping Station (HC005) Emergency Sanitary Overflow to Ancaster Creek Feasibility Study

FINAL REPORT
OLD DUNDAS ROAD SEWAGE PUMPING STATION (HC005) EMERGENCY SANITARY OVERFLOW TO ANCASTER CREEK FEASIBILITY STUDY

Report Prepared for:

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June 22nd, 2020
Reference: 65753.1

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1 INTRODUCTION

The low-lying properties in the vicinity of Old Dundas Road and Montgomery Drive have been prone to sanitary sewer surcharging which has resulted in flooding of basements. In response to flooding events in the 1980s and 1990s, an easement adjacent to the Old Dundas Pumping Station was acquired and registered by the City of Hamilton in November 1992 with the intent of preventing basement flooding by releasing untreated sewage into Ancaster Creek. In May of 1993 the Niagara Escarpment Commission refused application for construction of an emergency overflow. In April of 1997, council authorized the release and abandonment of the overflow easement which was completed on July 25, 1997. In subsequent years, basement flooding has continued culminating in two major flooding events on January 13th and 30th of 2013. In response to the 2013 flooding events, a Wet Weather Relief Master Plan and Class Environmental Assessment Study was undertaken in 2014.

1.1 Background

Aquafor Beech Limited completed *the Old Dundas Road Sewage Pumping Station (HC005) Wet Weather Relief Master Plan and Class Environmental Assessment Study* in October 2014. This study assessed issues relating to flooding within the sanitary sewershed area shown in **Figure 1.1**. The study involved both flow monitoring and the calibration of the Mike Urban computer model together with an assessment and selection of alternatives to mitigate flooding.

The primary areas that were flooded during the January 13th and 30th events of 2013 are the low-lying properties along Old Dundas Road between the pumping station and Montgomery Drive as well as Millcreek Court. The flooding results from flows that exceed the capacity of the Old Dundas Road Sewage Pumping Station. The pumping station has a maximum capacity of 160 litres per second (L/s). Results of monitoring, statistical analysis and hydrologic modeling conducted for the 2014 study indicated that return periods close to 1:5-years exceeded this flow capacity and that the 1:100-year event produced inflow at the pumping station of 240 L/s. Increasing the capacity of the pumping station is not a feasible option in the foreseeable future due to significant capacity constraints downstream of the forcemain.

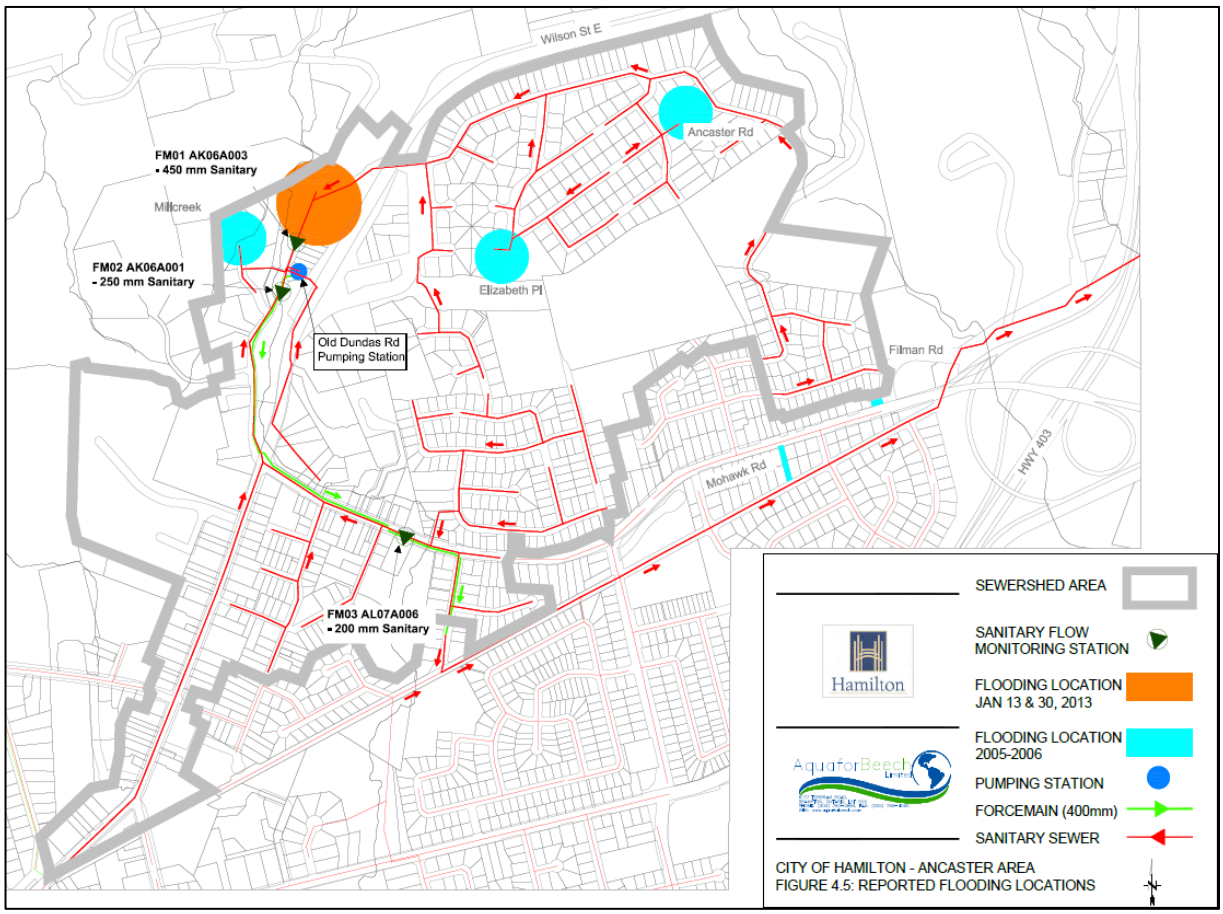


Figure 1.1: Reported Flooding Locations within Study Area

2014 Wet Weather Relief Master Plan Recommendations

The preferred alternative solutions that were initially developed to address the sewer flooding problem and associated issues were broadly categorized as follows:

1. Construct an Underground Inline/Offline Storage Facility
2. Remove Sources of Private Property Inflows
3. Reduce Infiltration / Inflow in the Public Property Works
4. Provide an Emergency Overflow to Ancaster Creek

The 2014 study found that the first three alternatives were required in order to effectively mitigate basement flooding associated with the sanitary sewer system. Based on the evaluation, three alternatives were found to be the most preferred. Collectively, implementation of the Public and Private Property works together with Inline/Offline Storage Facility along Montgomery Drive would provide a level of flood protection against basement flooding up to a 1:100-year level of service for the study area.

The report also noted that implementation of an emergency overflow will provide relief to homeowners who would experience flooding during storms that exceed the 100-year level.

1.2 Retrofits to Reduce Infiltration / Inflow

Partial implementation of the public component of sanitary conveyance network infiltration and inflow reduction measures has occurred in this sewershed draining to the Old Dundas Road Sewage Pumping Station. These measures have primarily consisted of manhole sealants applied to reduce infiltration which typically occurs at concrete joints in manholes or at cast in place components. From 2015 to 2016, 29 manholes were lined with SpectraShield®. SpectraShield® is a polymer liner that seals existing cracks or fractures and prevents infiltration and corrosion. **Figure 1.2** identifies a source of infiltration in a manhole as well as a manhole that has been treated with SpectraShield® to resolve this issue. In 2016, two pipes on Montgomery Drive were relined, although one of these pipes was eventually replaced by the Inline Storage Facility. While three other pipes were scheduled to be relined, one was found to be PVC and not in need of relining, and the other two were cancelled. In addition, two manhole lids at Wilson Street and Church Street were replaced in 2013 and one manhole frame at Wilson Street and Hendry Lane was repaired in 2015. **Figure 1.3** shows the completed and cancelled retrofits. *Note: Manhole AK09A003 at 436 Wilson Street East was identified as having received SpectraShield® lining in 2016; however, this manhole ID is not present in the model layers, and is therefore, not included in the figure.*

Figure 1.2: Infiltration in Manhole (left) and SpectraShield® Sealant in Manhole to Mitigate Infiltration (Right)

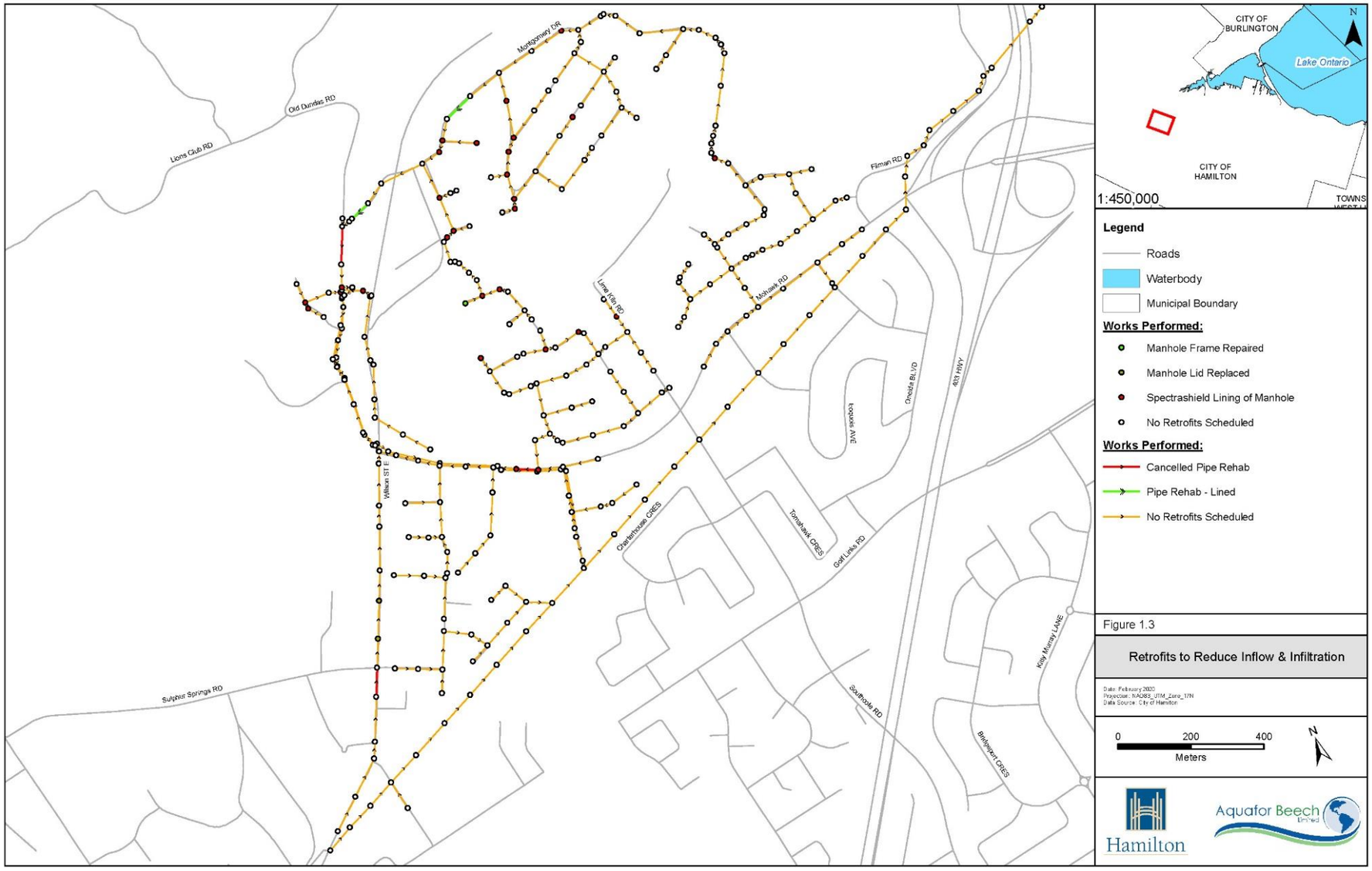


Figure 1.3: Retrofits to Reduce Infiltration / Inflow

1.3 Existing Inline Sanitary Storage Facility on Montgomery Drive

An underground 2100 mm diameter Inline Sanitary Storage Facility, which was designed to limit flows to the upstream of the flood prone areas, was constructed on Montgomery Drive between Old Dundas Road and Wilson St East in 2017. The facility is 121 m in length and has a detention capacity of approximately 460 m^3. The Inline Storage Facility together with the Public and Private Property Works as noted above were designed to provide sufficient detention to ensure that basement flooding does not occur for events up to the 1:100-year return period. **Figure 1.4** shows the Inline Storage Facility profile along with basement elevations assumed to be 1.8 m below surface grade for flooding analysis.

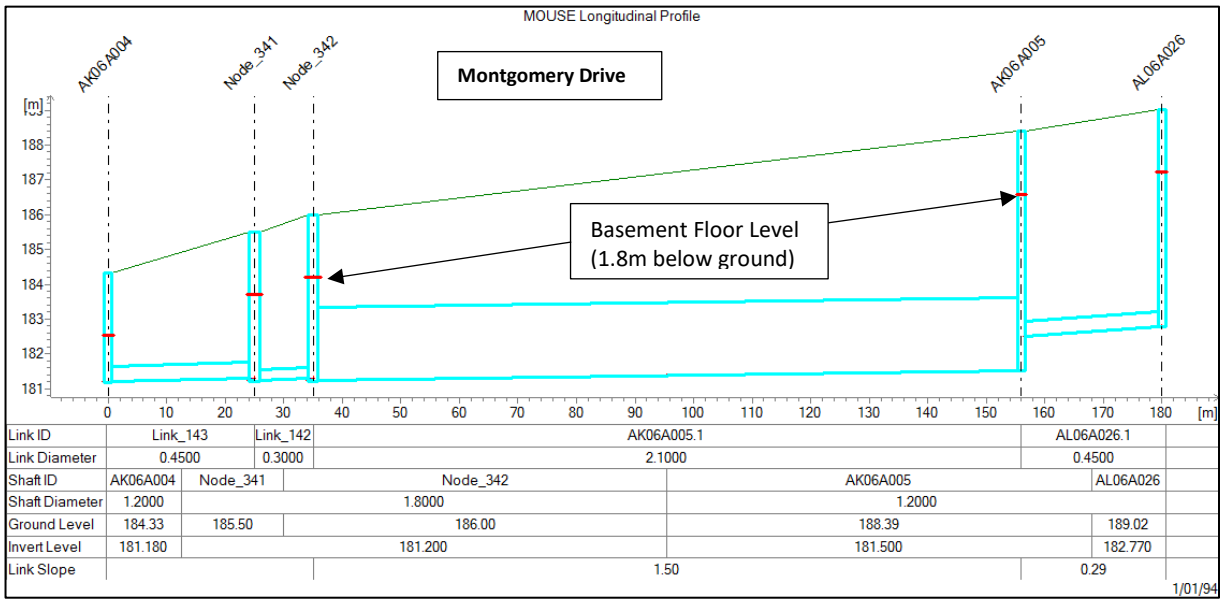


Figure 1.4: Profile of the Inline Storage Facility on Montgomery Drive

A separate assignment was conducted to evaluate the response of the Montgomery Drive Inline Storage Facility to in-situ runoff events. This involved flow monitoring in, and adjacent to, the Inline Storage Facility. Furthermore, a qualitative assessment of performance of the Inline Storage Facility, using the MIKE URBAN computer model and flow monitoring information has been provided to the City.

1.4 Flow Monitoring

In order to verify that the Inline Storage Facility is working as intended, flow monitoring was conducted during 2018 and 2019. ADS Triton+ flow loggers were installed in manholes immediately upstream and downstream of the facility (**Figure 1.5**). These loggers record depth and velocity at a regular interval and use input pipe dimensions to calculate flowrate and discharge volumes. These loggers are ideal for sites where surcharging may occur due to redundant pressure and up-looking ultrasonic depth modules.

Figure 1.5: Locations of Sanitary Flow Loggers

1.5 Flow Monitoring Results and Model Calibration

The existing Mike Urban model, together with the findings from the flow monitoring and flows from the pumping station, were used to assess qualitative performance of the Inline Storage Facility. The assessment was limited to periods of high flows when the in-line facility was detaining sanitary sewage volumes. The Mike Urban model, for select storm events, was run for the following two conditions:

1. Prior to installation of the existing Inline Storage Facility; and
2. With the Inline Storage Facility constructed and partial Public Property rehabilitation works in place.

The design storm events selected for the comparison are provided below:

1. 1:25-year, 6-hour Chicago Distribution;
2. 1:100-year, 6-hour Chicago Distribution; and
3. 1:100-year, 6-hour Chicago Distribution with modified IDF to simulate Climate Change effects.

The climate change storm event was generated by increasing the rainfall intensity by 15%. A comparison of the results is provided below to assess qualitive performance. Flow monitoring and modelling results are further detailed in a separate report submitted to the City of Hamilton in November 2019 titled *Flow Monitoring of Montgomery Drive Sanitary Storage Facility (Aquafor 2019)*.

Conclusions

1) A number of rainfall events were captured during the monitoring period. Listed below are the events which occurred during the flow monitoring period for which flow monitoring data was available.
    1. September 3, 2018 (13.9 mm)
    2. September 10-11, 2018 (17.5 mm)
    3. September 25-26, 2018 (16.8 mm)
    4. December 20-21, 2018 (13.5 mm)
    5. December 31, 2018 (15 mm)
    6. July 29-30, 2019 (20.6 mm)
    7. October 26-27, 2019 (44.1 mm)

2) It was found that the Inline Storage Facility attenuated peak flows for a large event on October 26-27, 2019 (44.1 mm). Peak flows observed at the upstream and downstream flow monitor locations were 59.5 L/s and 34.7 L/s respectively.

3) The MIKE URBAN computer model with and without the Inline Storage Facility and Public Property Works was run for the three design storm events listed above (1:25-year, 1:100-year, and 1:100-year + climate change).

The model results without the Inline Storage Facility and Public Property Works in place shows basement and surface flooding along Old Dundas Road for the three scenarios listed above. The model results with the Inline Storage Facility in place together with the Public Property Works show significant reduction in the hydraulic grade line (HGL) within the sewer system. The critical location for risk of basement flooding is at the intersection of Montgomery Drive and Old Dundas Road where the 1:100-year and 1:100-year + climate change scenario show that the HGL slightly exceeds the 1.8 m below surface and therefore, still poses a basement flooding risk in this area. However, it should be noted under this scenario, the HGL remains well below ground and does not show any surface flooding. A significant level of flood protection is therefore provided by implementing the Inline Storage Facility and the Public Property Works.

2 STUDY PURPOSE AND BACKGROUND

As noted in the 2014 *Old Dundas Road Sewage Pumping Station (HC005) Wet Weather Relief Master Plan and Class Environmental Assessment Study*, the Public and Private Property Works, together with the Inline Storage Facility will provide a 100-year level of flood protection for the study area. Furthermore, monitoring and modelling conducted to assess the performance of the Inline Storage Facility and Public Property Works completed to date, indicates that the facility is performing as designed and will provide an increased level of service for the area of Old Dundas Road that was previously subject to flooding.

The City of Hamilton has requested further investigation of the fourth alternative from the 2014 study – **Provide an Emergency Overflow to Ancaster Creek**. The provision of this emergency overflow would provide protection beyond the existing 1:100-year level of service. The scope of this study is to consider an emergency sanitary overflow which would bypass the Old Dundas Pumping Station during flows in excess of the 1:100-year return period event. An integral component of this study will be to define the potential environmental and social impact of an emergency sanitary overflow to Ancaster Creek.

The *Old Dundas Road Sewage Pumping Station Environmental Impact Statement* (EIS) conducted for the City of Hamilton in 1994 by Totten Sims Hubicki Associates (TSH) investigated two (2) alternatives that involved emergency overflows to Ancaster Creek without treatment. These alternatives were:

1) **Overflow Pipe Only**: This option included a gravity pipe from the pumping station directly to Ancaster Creek preventing surcharging of the pipes feeding the pumping station on Old Dundas Road.

2) **Overflow Pipe with Twinning of Input Pipes**: This option involved providing temporary storage of sewage via a second sanitary sewer along Old Dundas Road and providing an emergency gravity overflow to the creek. It should be noted that providing storage along Old Dundas Road was initially proposed when the Inline Storage Facility was being designed but the Inline Storage Facility was moved to Montgomery Drive due to geologic constraints, utility constraints, and to minimize the impact of construction on local traffic flow.

The 1994 EIS Study concluded that an overflow pipe discharging untreated sewage into Ancaster Creek is not an ecologically sound solution to the problem of residential sewage backup. Agency comments considered as part of the 1994 Study included the following:

> **Niagara Escarpment Commission (NEC):** The NEC was opposed to the overflow alternatives. The subject area is designated Escarpment Protection Area in the Niagara Escarpment Plan and discharge from the overflow would result in the contamination of the stream thereby degrading the quality of water representing a possible threat to fish and wildlife stocks downstream.
>
> It is also noted that NEC staff subsequently commented as part of the 2014 Master Plan consultation, that the study area is in an area of development control and that we must regard Parts 1.7 (Urban Area) and 2.6 (Development Affecting Water Resources) of the Niagara Escarpment Plan.
>
> **Hamilton Conservation Authority (HCA):** HCA was in objection to the overflow since the development could adversely affect a significant fishery resource.
>
> It is also noted that HCA staff subsequently commented as part of the 2014 Master

Plan consultation, that Ancaster Creek is classified as a cold/cool water system through the study area, and ultimately outlets to Cootes Paradise and Hamilton Harbour. HCA staff remarked that portions of the study area, including the tributaries of Ancaster Creek, are regulated pursuant to Ontario Regulation 161/06 (HCA's Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses) made under the Conservation Authorities Act, R.S.O. 1990. Some of the work associated with constructing an overflow may therefore require a permit from HCA. HCA staff commented that alternative 6, emergency overflow to Ancaster Creek, is included within the preferred solution that has been recommended by the study. This project has been identified through the Master Plan study as a Schedule 'C' project and will require further study and assessment prior to any implementation. Notwithstanding this, HCA staff noted that there would be potential environmental concerns with such a proposal. A permit from HCA would also likely be required for any emergency overflow to the creek.

Ministry of Natural Resources (MNR, now MNRF): Comments from MNR staff in 1994 note objection to the overflow because sewage effluent discharged into the Ancaster Creek would be considered a deleterious substance, to permit such an activity would be contrary to Section 35 of the Fisheries Act.

Ministry of the Environment (MOE, now MECP): Comments from MOE staff in 1994 note objection to the overflow and request that the City of Hamilton investigate and implement other measures to address the problem of station/forcemain failure, or alternative means of preventing discharge to Ancaster Creek.

It is also noted that MOE staff subsequently commented as part of the 2014 Master Plan consultation, that the ESR should also include a complete discussion of all the permits, approvals and licenses that will be necessary and should demonstrate that all agencies having jurisdiction have been consulted and can support a discharge to this coldwater stream.

Prior to undertaking the recent environmental assessment, it was determined that local environmental, technical and social constraints and opportunities would need to be re-evaluated. To gain a better understanding of local constraints and opportunities, field work (flow monitoring and water quality sampling) and a review of background information was prioritized to provide a technical basis for evaluating alternatives.

3 PRELIMINARY ALTERNATIVES

This study focuses on three (3) alternatives relating to the sanitary emergency overflow. The scope of each alternative is presented including a brief description, the overall impacts and costs to be incurred.

The alternatives analyzed for this study are:

1) **Do Nothing**: Under this assumption an emergency overflow pipe is not constructed. The existing level of service with the Inline Storage Facility and partial Public Property Works will be maintained. The City will continue to implement further Public Property Works to eliminate inflow and infiltration from the system. Should the capacity of the Inline Storage Facility be exceeded and flow to the pumping station exceed the pumping capacity (or the pumps fail), there is likely to be flooding. It should be noted that upgrades being implemented at the pumping station are occurring outside of this environmental assessment. These upgrades will not increase the capacity of the station but will mitigate the risk of flooding associated with pump failure by providing new pumps, mechanical equipment and an external emergency generator in case of temporary power failure. The Do Nothing alternative will only be selected if there are significant constraints associated with other alternatives.

2) **Install Emergency Overflow without Treatment**: This alternative is similar to the "Overflow Pipe Only" option investigated in the 1994 EIS Study. Sanitary flow would be discharged directly into the Ancaster Creek to prevent surcharging of sanitary sewers into basements along Old Dundas Road. For this option, the emergency overflow is proposed downstream of the Inline Storage Facility tying into an existing storm sewer approximately 180 m north of the pumping station. The layout of this alternative is presented in **Figure 3.1**.

3) **Install Emergency Overflow with Treatment**: For this alternative a long linear filtration system is proposed within the road right of way. The system would include linear wetland features for filtration and perforated pipes to encourage infiltration of partially treated wastewater to in-situ soils. This option would require an extended flow path to allow an increased filtration area. The flow path of the overflow treatment system would follow Old Dundas Road to the intersection with Lions Club Road and discharge effluent downstream of Sherman Falls. The layout of this alternative is presented in **Figure 3.2**.

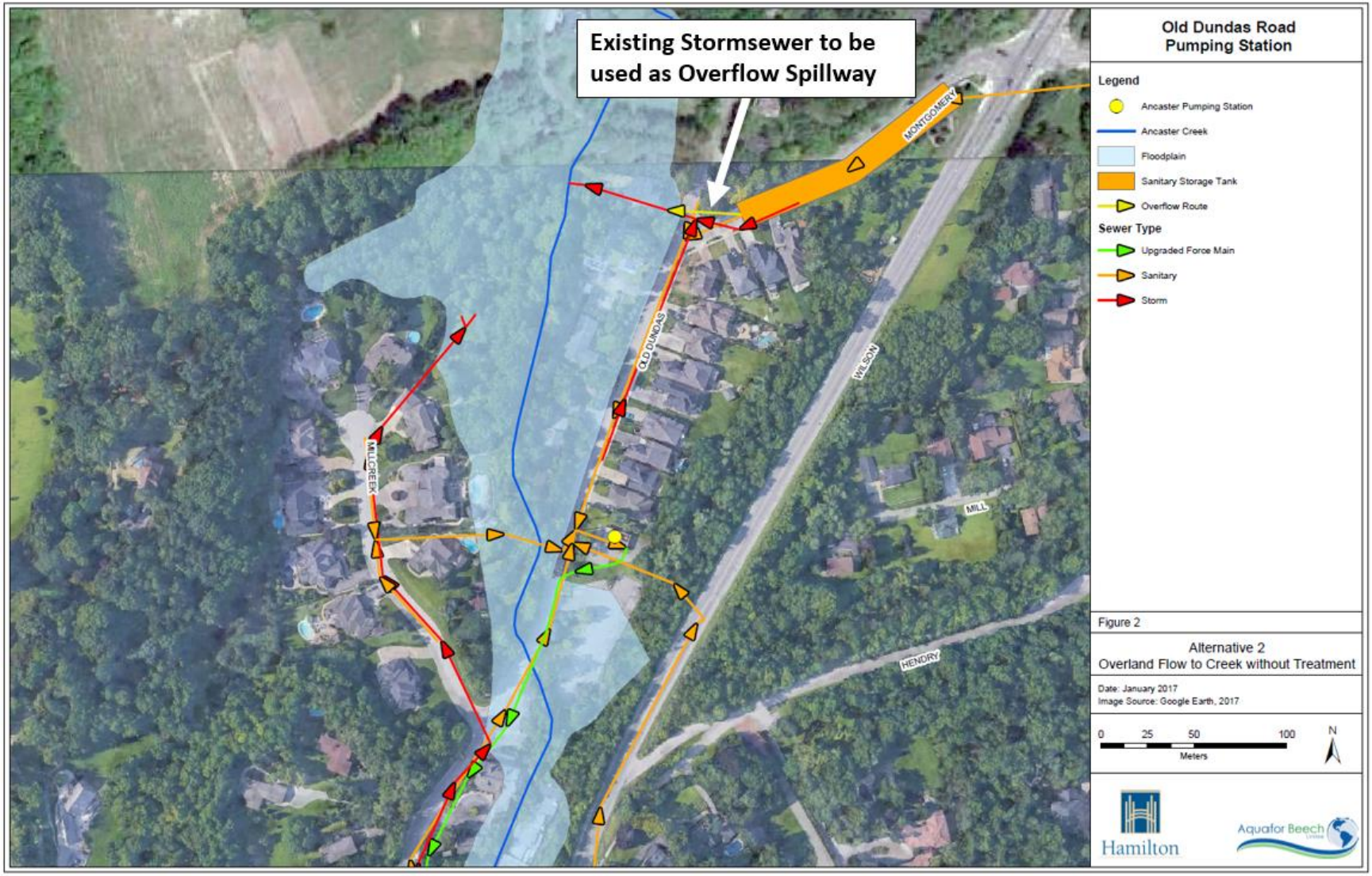


Figure 3.1: Emergency Sanitary Overflow to the Creek without Treatment

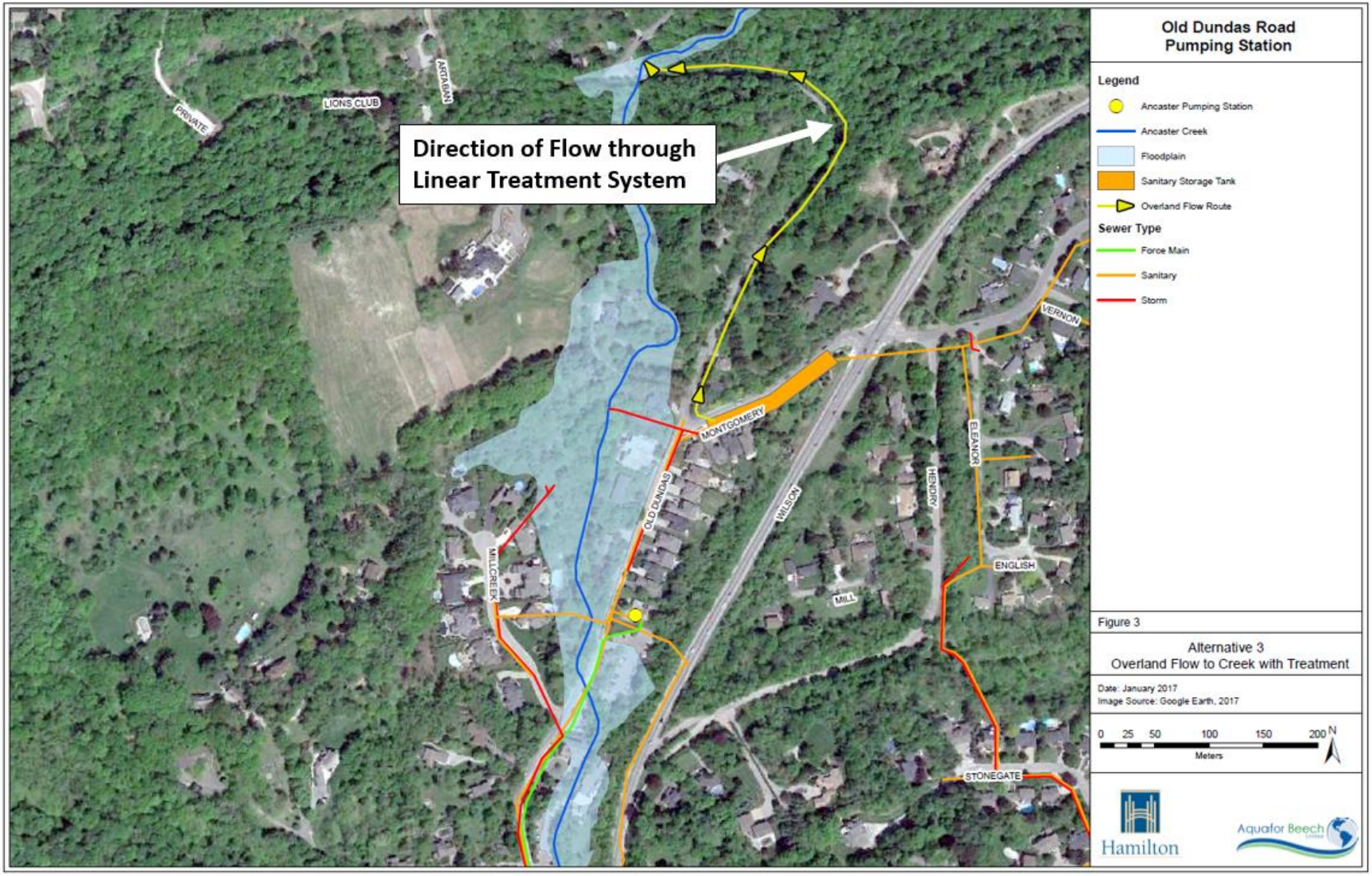


Figure 3.2: Emergency Sanitary Overflow to the Creek with Treatment

4 EVALUATION CRITERIA

For this study the following Evaluation Criteria were used to determine the preferred alternative:

- **Cost**: This criterion includes capital costs associated with implementation as well as ongoing costs associated with operations, maintenance and compliance.

- **Ability to Feasibly Achieve Objective**: This criterion is simply the ability of an alternative to alleviate sewage backup to homes.

- **Fisheries and Natural Environment Impacts**: This criterion reflects positive or negative effects on aquatic resources in Ancaster Creek and includes water quality, sediment load, fish habitat and cumulative effects downstream.

- **Community and Recreational Impacts**: This criterion reflects the effects of each alternative on the recreational attributes of the Environmentally Significant Areas (ESA) and Areas of Natural Scientific Interest (ANSI) areas on recreational fishing, hiking and other passive activities popular in the Ancaster Creek valley.

For each evaluation criteria, the alternatives are ranked from 1 (best score) to 3 (worst score). These ranks are averaged for a final evaluation ranking.

4.1 Cost

The **Do nothing** alternative has no capital costs. Compliance costs associated with flooding of raw sewage to properties along Old Dundas Road are expected to be infrequent due to the level of service provided by the existing Inline Storage Facility and the pumping station upgrades which will mitigate pump failure related flooding.

The **Install Emergency Overflow without Treatment Option** requires construction isolated at the outlet of the Inline Storage Facility. High-level costing estimates approximate the capital cost to be $100,000.

The **Install Emergency Overflow with Treatment Option** requires significant construction along approximately 500 m of roadside ditch to accommodate a linear filtration feature as well as outlet works to Ancaster Creek. High level costing estimates approximate the capital cost to be $500,000.

Table 4.1: Cost Ranking of Alternatives

	Do Nothing	Install Emergency Overflow without Treatment	Install Emergency Overflow with Treatment
Cost Rank	1	2	3

4.2 Ability to Feasibly Achieve Objective

The **Do nothing** alternative does not provide additional flood protection beyond the existing 1:100-year level of service.

The **Install Emergency Overflow without Treatment Option** will provide flood protection by diverting sewage to Ancaster Creek. There are technical concerns associated with the backflow from Ancaster Creek during flooding events. The 1:100-year flood levels in the creek in the vicinity of Montgomery Drive are approximately 183.71 m above sea level. The existing storm sewer outlet that would serve as the overflow is substantially submerged during the 1:100-year event. Infrequent runoff events which overwhelm the sanitary system but produce a smaller response from the creek are possible, but detailed hydrologic modelling of the creek and sanitary network would be required to confirm this and are outside of the scope of this project.

The **Install Emergency Overflow with Treatment Option** will provide flood protection by diverting sewage to Ancaster Creek. There are significant technical concerns associated with grading along the flow route of the linear treatment system. It appears as though there is a negative slope along a significant portion of the flow route which would not allow for gravity flow. There are also concerns associated with utility conflicts along this route.

Table 4.2: Feasibility Ranking of Alternatives

	Do Nothing	Install Emergency Overflow without Treatment	Install Emergency Overflow with Treatment
Feasibility Rank	3	2	1

4.3 Fisheries and Natural Environment Impacts

Fisheries and aquatic considerations impose constraints on any sewage overflow to Ancaster Creek as maintaining habitat associated with aquatic life is a priority. Acute effects of a sewage discharge to the creek may include increased water temperatures, bank erosion, sediment deposition and degradation of water quality.

In 1994, when an overflow was initially considered, concerns from commenting agencies highlighted issues regarding the potential quantity of overflow raw sewage and the time period that Ancaster Creek would be exposed to emergency spillage. At the time, it was estimated that a sewage flow rate of 0.04 m^3/s over a period of 12-hours into the creek would cause adverse effects to the creek, especially considering the size of the stream system and lack of organic layer for absorption. It was stated that the dilution of stream water and sewage outfall would depend very much on time of year, amount of sewage (time of day of failure), and local climate events (storm flush, etc.).

The *Old Dundas Road Sewage Pumping Station Environmental Impact Statement* (Totten Sims Hubicki Associates, 1994) notes that all tributaries to Spencer Creek, including Ancaster Creek

of which would be affected by the proposed works, display characteristics of sensitive coldwater habitat. The report notes that salmonid migration and spawning habitat has been observed within the lower reaches of Ancaster Creek (Totten Sims Hubicki Associates, 1994). Furthermore, the report discussed that fish species as well as habitat is variable throughout Ancaster Creek, with warmwater habitat displayed downstream near Cootes Paradise.

In order to confirm or discount this report, Hamilton Conservation Authority (HCA) was contacted in October 2018 to obtain relevant and up-to-date fisheries data for the study area. In response to this request, Colin Oakes of the HCA provided the fisheries community results associated with the monitoring locations displayed in **Figure 4.1**.

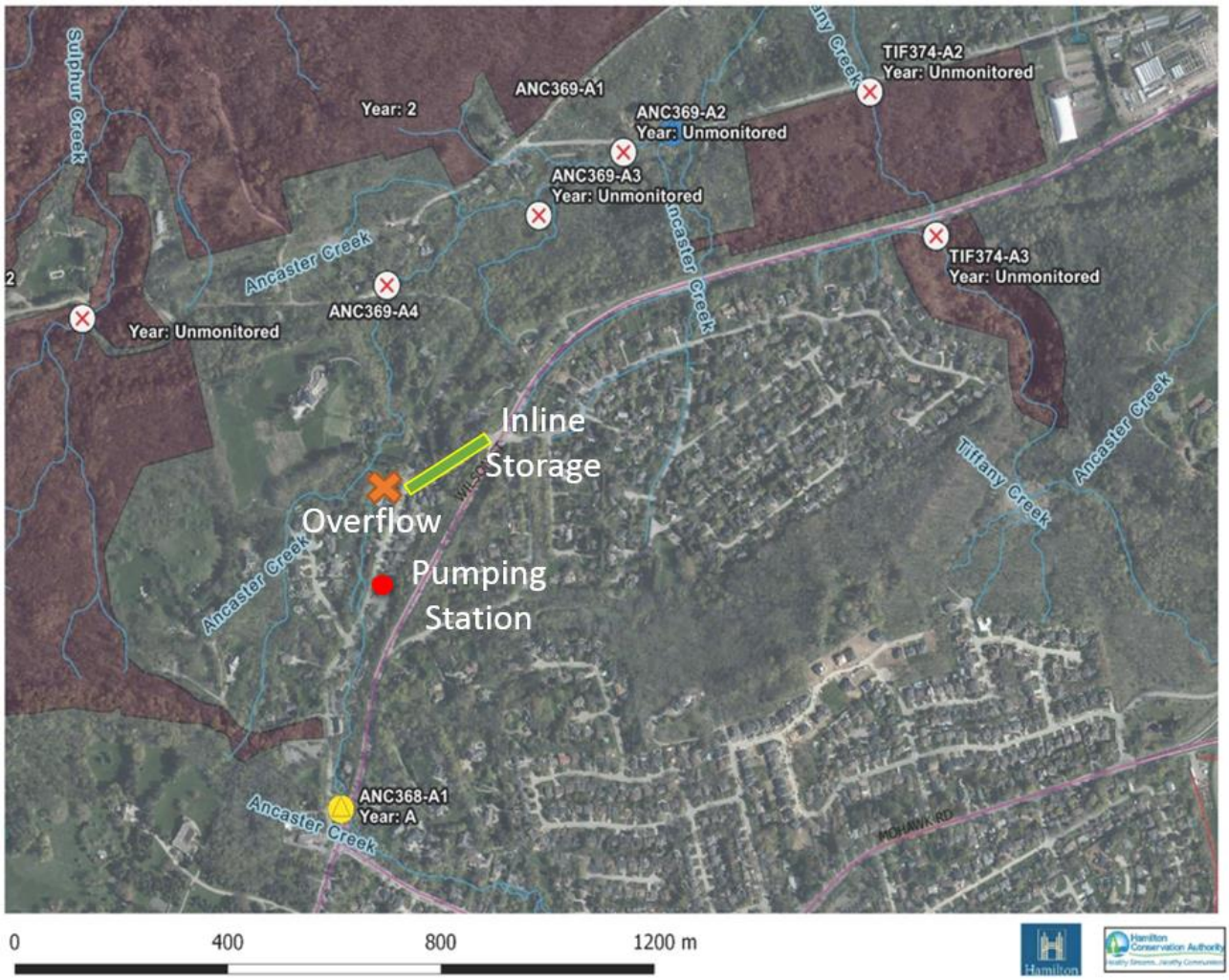


Figure 4.1: HCA Ancaster Creek Fish Community Monitoring Stations

The information provided in the 1994 EIS Report are supported by the results of the fish community results provided by HCA. Overall, 6 species have been observed within the reach impacted by the potential outlet. Station ANC368-A1, which can be observed upstream of the pumping station, displayed a community associated with moderate to high disturbance and a warmwater thermal regime. Conversely, Station ANC369-A3, which can be observed

downstream of the pumping station, displayed a community associated with little disturbance and a cool-coldwater thermal regime. Particular to ANC369-A3, Rainbow trout (*Oncorhynchus mykiss*), a coldwater species that is intolerant of disturbance was observed as the second-most abundant species downstream of the proposed outlet. Results date back to 1998 and have likely changed in composition since the development of adjacent lands. However, Ancaster Creek displays characteristics of a sensitive, coldwater stream which could be negatively impacted from upstream influences. It is also noted that Trout Unlimited Canada is currently doing a study on Ancaster Creek to determine if it can be restored to allow fish to migrate for spawning.

4.3.1 Department of Fisheries and Oceans (DFO) Request for Regulatory Review

The federal *Fisheries Act* requires the following:

- That projects avoid causing the death of fish and the harmful alteration, disruption or destruction of fish habitat unless authorized by the Minister of Fisheries, Oceans and the Canadian Coast Guard. This applies to work being conducted in or near waterbodies that support fish at any time during any given year or are connected to waterbodies that support fish at any time during any given year.

- If a project is permitted to be constructed, upon completion of the detailed design for the works, the works are to be cross-referenced with the DFO "Projects Near Water" online service to determine if a request for regulatory review under the federal *Fisheries Act* is required. Within this online service, the Minister details steps for determining if a project requires regulatory review. Steps include "Measures to protect fish and fish habitat" as well as "Waterbodies where review isn't required" (Department of Fisheries and Oceans, 2019).

Since the proposed emergency overflow works are expected to influence Ancaster Creek which supports fish at any time during any given year and the project has the potential to cause the death of fish and the harmful alteration, disruption or destruction of fish habitat, it is anticipated that if the project is permitted, it will require a DFO regulatory review. As such, a detailed design package, as noted above, would be required including a detailed mitigation plan to reduce the potential of causing the death of fish and the harmful alteration, disruption or destruction of fish habitat.

Additionally, the DFO's Fish Protection Plan would be required to review the project and mitigation plan and would determine if the project would result in the death of fish and the harmful alteration, disruption or destruction of fish habitat. If so, *Fisheries Act* authorization would be required through an issued *Letter of Advice* and the proponent would be required to prepare a *Detailed Offsetting Plan*, which would include a *Letter of Credit* to ensure that the conditions of the *Fisheries Act* authorization would ultimately be completed. The offsetting plan would be required to include some combination of:

1. Habitat restoration and enhancement;
2. Habitat creation;
3. Chemical and biological manipulations; and/or
4. Other complementary measures.

There are currently two potential options for the implementation of offsetting works, including 1) project specific measures; and 2) proponent-lead habitat banks. A flowchart to assist guide proponents in fish habitat offsetting with DFO is provided in **Figure 4.2**.

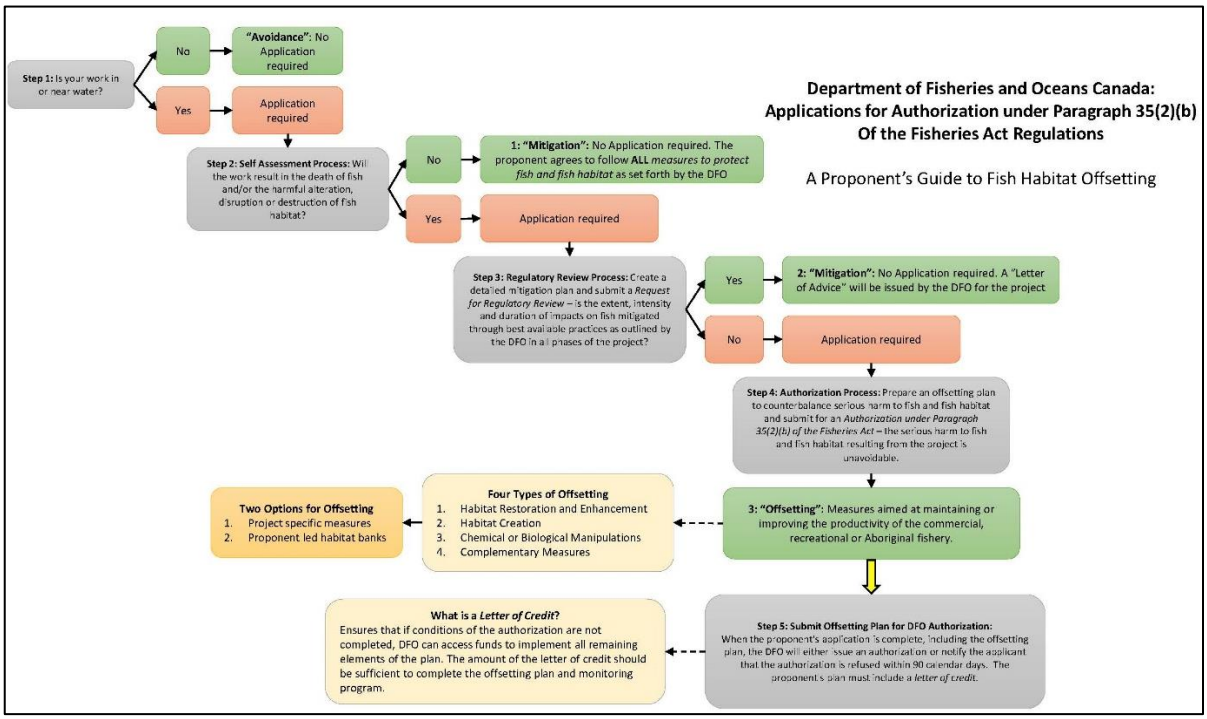


Figure 4.2: A Proponent's Guide to Fish Habitat Offsetting with DFO

4.3.2 Water Quality Analysis

As part of this study, water quality monitoring was conducted at the pumping station (inflows), and in the creek (upstream of Old Dundas Road Crossing). To distinguish between water quality conditions during runoff events and ``dry conditions``, samples were taken both during rainfall events and after 48-hours without precipitation. In total, four water quality events were sampled at four separate times. The results are summarized below for key water quality parameters. Full water quality laboratory results are provided as **Appendix A**. All rainfall depths identified are from Environment Canada Gauge 6153193 at Hamilton Airport.

Table 4.3: Water Quality Sampling Event 1 (July 26th, 2017 – Dry Event)

Water Quality Parameter	Unit	Guideline/ Standard	Sanitary Sewer	Creek
Turbidity	NTU	-	62.6	4.7
TSS	mg/L	-	216	<10

Water Quality Parameter	Unit	Guideline/ Standard	Sanitary Sewer	Creek
Conductivity	*u*S/cm	-	1250	1150
pH	pH units	6.5-8.5 [1]	7.92	8.30
Fluoride	mg/L	0.12 [2]	<0.25	<0.25
Chloride	mg/L	640 [2]	199	183
Total Phosphorus	mg/L	0.03 [1]	2.4	<0.05
Nitrate as N	mg/L	13 [2]	<0.25	1.26
Ammonia as N	mg/L	0.02 [1]	16.6	<0.02
Potassium	mg/L		10.6	2.27
E. coli	CFU/100ml	-	No Data (over-crowding microbial growth)	900
Total Coliforms	CFU/100ml	-	No Data (over-crowding microbial growth)	No Data (over-crowding microbial growth)
Fecal Coliform	CFU/100ml	-	No Data (over-crowding microbial growth)	1200

[1] Provincial Water Quality Objective
[2] Canadian Council of Ministers of the Environment

Table 4.4: Water Quality Sampling Event 2 (October 11th, 2017 - Rain (7.4 mm))

Water Quality Parameter	Unit	Guideline/ Standard	Sanitary Sewer	Creek
Turbidity	NTU	-	133	3
TSS	mg/L	-	360	<10
Conductivity	*u*S/cm	-	1050	1260
pH	pH units	6.5-8.5 [1]	7.85	8.26
Fluoride	mg/L	0.12 [2]	<0.25	<0.25
Chloride	mg/L	640 [2]	177	248
Total Phosphorus	mg/L	0.03 [1]	3.7	0.05
Nitrate as N	mg/L	13 [2]	<0.25	1.31
Ammonia as N	mg/L	0.02 [1]	18.7	0.03
Potassium	mg/L		11.6	2.84
E. coli	CFU/100ml	-	No Data (over-crowding microbial growth)	450
Total Coliforms	CFU/100ml	-	No Data (over-crowding microbial growth)	No Data (over-crowding microbial growth)
Fecal Coliform	CFU/100ml	-	No Data (over-crowding microbial growth)	820

[1] Provincial Water Quality Objective
[2] Canadian Council of Ministers of the Environment

Table 4.5: Water Quality Sampling Event 3 (January 26th, 2018 - Dry Event)

Water Quality Parameter	Unit	Guideline/ Standard	Sanitary Sewer	Creek
Turbidity	NTU	-	49.1	2.2
TSS	mg/L	-	144	<10
Conductivity	*u*S/cm	-	1240	1220
pH	pH units	6.5-8.5 [1]	7.97	8.08
Fluoride	mg/L	0.12 [2]	<0.25	<0.25
Chloride	mg/L	640 [2]	219	204
Total Phosphorus	mg/L	0.03 [1]	1.81	0.03
Nitrate as N	mg/L	13 [2]	0.31	1.73
Ammonia as N	mg/L	0.02 [1]	11.6	<0.02
Potassium	mg/L		11.4	2.29
E. coli	CFU/100ml	-	No Data (over-crowding microbial growth)	No Data (over-crowding microbial growth)
Total Coliforms	CFU/100ml	-	No Data (over-crowding microbial growth)	No Data (over-crowding microbial growth)
Fecal Coliform	CFU/100ml	-	No Data (over-crowding microbial growth)	820

[1] Provincial Water Quality Objective
[2] Canadian Council of Ministers of the Environment

Table 4.6: Water Quality Sampling Event 4 (February 20th-21st, 2018 - Rain (21.4 mm))

Water Quality Parameter	Unit	Guideline/ Standard	Sanitary Sewer	Creek
Turbidity	NTU	-	60.5	142
TSS	mg/L	-	84	279
Conductivity	*u*S/cm	-	763	475
pH	pH units	6.5-8.5 [1]	7.98	7.60
Fluoride	mg/L	0.12 [2]	<0.25	<0.25
Chloride	mg/L	640 [2]	178	124
Total Phosphorus	mg/L	0.03 [1]	0.37	0.34
Nitrate as N	mg/L	13 [2]	2.30	0.44
Ammonia as N	mg/L	0.02 [1]	1.06	0.15
Potassium	mg/L		4.46	3.59
E. coli	CFU/100ml	-	110,000	400
Total Coliforms	CFU/100ml	-	460,000	152,000
Fecal Coliform	CFU/100ml	-	136,000	600

[1] Provincial Water Quality Objective
[2] Canadian Council of Ministers of the Environment

The samples indicate that while the water quality conditions in the creek are degraded by runoff constituents associated with urban and rural pollution, the sanitary sewage is

considerably more degraded. As such, an untreated overflow of sewage to Ancaster Creek would be the least desirable from the perspective of protecting and enhancing fisheries and the natural environment.

The **Do nothing** alternative proposes no release of sewage and is this the highest scoring alternative from a fisheries and natural environment perspective.

The **Install Emergency Overflow without Treatment Option** will result in degraded water quality for a period of time after the overflow occurs. The impact of a spill would depend on volume released, time of year (e.g. during timing windows associated with aquatic life), and creek conditions. This alternative is ranked 3rd with respect to impact on fisheries and the natural environment.

The **Install Emergency Overflow with Treatment Option** will provide some mitigation of pollutant discharge via filtration and infiltration in wetland and perforated pipe components. The system will not involve secondary or tertiary treatment mechanisms and pollutant loading reductions will be subject to design but are not expected to exceed 40% for important water quality parameters. This alternative is ranked 2nd with respect to impact on fisheries and the natural environment.

Table 4.7: Fisheries and Natural Environment Ranking of Alternatives

	Do Nothing	Install Emergency Overflow without Treatment	Install Emergency Overflow with Treatment
Fisheries and Natural Environment Rank	1	3	2

4.4 Community and Recreational Impacts

Ancaster Creek is an area with an abundance of trails, parks and other accessible natural areas. Approximately 200 m downstream of Montgomery Drive is Sherman Falls, a picturesque waterfall accessible to the public from the Bruce Trail. The Monarch Trail and the McMaster Conservation Corridor are also public green spaces downstream of the project site on Ancaster Creek. The impact of an untreated sewage overflow to the creek would potentially include sewage and sanitary debris along the channel. Because an overflow is likely to occur during periods of high flow in the creek, these items may be littered in the riparian vegetation above the typical water line. Odours from sewage littered in the valley may also be present after an overflow especially if it were to occur during warm weather.

As stated in the 1994 EIS Report, allowing the spillage of raw sewage into a tributary of Cootes Paradise and Hamilton Harbour seems counterproductive considering the expenses incurred in restoring these areas and such a project could be harmful to the City of Hamilton's reputation for environmental stewardship.

The **Do nothing** alternative proposes no release of sewage and is this the highest scoring

alternative from the perspective of community and recreational impacts.

The **Install Emergency Overflow without Treatment Option** will likely result in a degraded natural corridor which will be less desirable for optional recreational users. This alternative is ranked 3rd with respect to impact on fisheries and the natural environment.

The **Install Emergency Overflow with Treatment Option** will generally prevent larger debris from spilling into the creek but will still result in the discharge of wastewater that has not undergone any biological or chemical treatment. This alternative is ranked 2nd with respect to impact on local recreation due to the concerns associated with odour.

Table 4.8: Community and Recreational Impact Ranking of Alternatives

	Do Nothing	Install Emergency Overflow without Treatment	Install Emergency Overflow with Treatment
Community and Recreational Rank	1	3	2

4.5 Overall Ranking of Alternatives

Averaging the ranking associated with each alternative identifies the **Do Nothing** alternative as the preferred solution, followed by the **Overflow with Treatment Option** and the **Overflow without Treatment Option**.

Table 4.9: Overall Ranking of Alternatives

Alternatives	Evaluation Criteria				
	Cost	**Ability to Feasibly Achieve Objective**	**Fisheries and Natural Environment Impacts**	**Community and Recreational Impacts**	**Average Rank**
Do Nothing	1	3	1	1	**1.5**
Install Emergency Overflow without Treatment	2	2	3	3	2.5
Install Emergency Overflow with Treatment	3	1	2	2	2.0

4.6 Compliance with MECP Regulation

Although not considered in the evaluation scoring, compliance with the Ministry of Environment, Conservation and Parks (MECP) regulations must also be discussed when considering a sewage overflow into a watercourse receiver. The MECP's July 5, 2019 proposed

new Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health includes the following mandate:

- Promote infrastructure planning and eligible investments that support the reduction of excess nutrients from point sources such as municipal wastewater treatment systems, including overflows and bypasses as priority considerations under applicable infrastructure and other funding programs;

- Review or support demonstration of innovative practices and technologies that result in improved environmental protection, while reducing reliance on conventional infrastructure funding. Examples may include long term strategic planning for infrastructure, sewage treatment plant optimization, reducing runoff volume so less is collected by sanitary or combined sewers, phosphorus/water recovery and reuse, full cost recovery of municipal wastewater and stormwater services with incentives; and

- Update wastewater policies and develop a new stormwater management policy, including policies specific to treatment requirements, sewage overflows and bypasses to enhance environmental protection and reduce nutrient loadings.

Creating a sanitary overflow into Ancaster Creek would be in contravention of the above mandate and it is unlikely that approval would be granted through the Environmental Compliance Approvals process.

5 CONCLUSION

It should be noted that this project started out as a Schedule 'C' Municipal Class Environmental Assessment (MCEA) to determine the location and design of an emergency overflow. Since the "Do Nothing" alternative was chosen as the preferred alternative, the City has decided to abandon the MCEA process for this project and document the study findings through this feasibility report.

After an evaluation considering partially treated and untreated overflows to Ancaster Creek, it was found that the "**Do Nothing**" option is the preferred alternative. The issues and constraints associated with the other alternatives are summarized below.

Install Emergency Overflow without Treatment: This alternative would negatively impact Ancaster Creek. The local coldwater fish species are intolerant of disturbance and would likely suffer both acute and long-term harm after an untreated discharge. Recreational opportunities, which are assets to the local community would also suffer both locally and in downstream areas including Cootes Paradise. There is also a hydraulic constraint in the proposed discharge area as the existing storm sewer in the vicinity of the overflow is significantly submerged during flood events resulting in potential backflow into the overflow pipe.

Install Emergency Overflow with Treatment: Using a passive filtration/infiltration system within the road right-of-way was considered which will generally prevent larger debris from spilling into the creek but will still result in the discharge of wastewater that has not undergone any biological or chemical treatment. However, the grades of the road and utility conflicts as the road follows the creek downstream present a significant constraint.

Based on the above constraints, the "**Do Nothing**" received the highest ranking. This approach generally agrees with the findings of the 1994 EIS Study which concluded that:

"Based on the weighting of alternatives, an overflow pipe discharging untreated sewage into Ancaster Creek is not an ecologically sound solution to the problem of residential sewage backup, as serious as this potential health problem is. The construction may have negative repercussions on critical components of the sensitive Dundas Valley aquatic ecosystem, and damage to its fishery may last for several years, particularly in Ancaster Creek but also in possible areas further downstream. Although residential sewage backup and personal property damage should be averted, the severity of the environmental and social impacts of this proposal should be avoided through the recommended course of action where compromises by all parties may be necessary." (Old Dundas Road Sewage Pumping Station Environmental Impact Statement – TSH, 1994)

Since this EIS Study was undertaken in 1994, the MECP has only reinforced their mandate of eliminating sewage overflows through Procedure F-5-5 which deals specifically with Combined Sewer Overflows as well as with the recent Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health.

It should be noted that since the Old Dundas Road Sewage Pumping Station (HC005) Wet Weather Relief Master Plan and Class Environmental Assessment Study was undertaken in 2014, hydraulic conditions within the sewershed have improved significantly via the implementation of several alternatives designed to effectively mitigate basement flooding associated with the sanitary sewer system. Specifically, the construction of the Montgomery Drive Inline Storage Facility and the reduction of infiltration/inflow in the Public Property Works has provided significant level of flood protection associated with sanitary surcharging. These improvements correspond with an increased level of service and reduced flooding risk to local residents.

With respect to the three alternatives that were considered in this study the "**Do Nothing**" alternative is found to be the preferred alternative. It should be emphasized, however, that of the three preferred alternatives in the study entitled *the Old Dundas Road Sewage Pumping Station (HC005) Wet Weather Relief Master Plan and Class Environmental Assessment Study* in October 2014 only one (the Inline Storage Facility) has been fully implemented. The Public Property Works have been implemented by the City in select locations and the Private Property Works have not been initiated. As noted in the 2014 study, these three preferred alternatives should be prioritized and implemented in order to meet the initial intent of the

2014 study.

Furthermore, preventative measures, such as the implementation of backwater valves for homes in low lying areas should be promoted. A backwater valve is a mechanical device that only allows wastewater to flow in one direction, from a home to the city sewer. In the event of a sewer backup, the backwater valve flap closes, preventing anything from flowing in or out of a sewer until the sewer backup subsides and the flap reopens. A sewer backup could occur if the wastewater system becomes overwhelmed with stormwater during a heavy rain storm. The installation of backwater valves, if properly installed and maintained, would provide a level of protection above the 100-year storm. The City currently promotes the use of backwater values and offers a grant program under the *Protective Plumbing Program*.

INFORMATION REPORT

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	August 11, 2021
SUBJECT/REPORT NO:	City of Hamilton Annual Collision Report – 2020 Statistics and Trends (PW21047) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	David Ferguson (905) 546-2424 Ext. 2433 Khaled Hawash (905) 546-2424 Ext. 2064
SUBMITTED BY: **SIGNATURE:**	Mike Field Acting-Director, Transportation Operations & Maintenance Public Works Department 

COUNCIL DIRECTION

The Public Works Committee approved the Hamilton Strategic Road Safety Program and Vision Zero Action Plan for 2019-2025 on February 4, 2019, through Report PW19015. As part of the report, a component of the program is the development of an Annual Collision Report. This report serves as an update on the City's 2020 Annual Collision Statistics and Trends.

INFORMATION

On March 17, 2020, the Government of Ontario declared a state of emergency due to the COVID-19 pandemic and ordered gradual closures of businesses and facilities. As a result, the City of Hamilton experienced and continues to experience the impacts to the transportation network including reductions in vehicular traffic volumes. Through the months of April to December in 2020 there was approximately a 50 percent average reduction in vehicular traffic volumes during the morning and afternoon rush hour.

The 2020 Provincial collision statistics have not yet been released, however the Ontario Provincial Police (OPP) have reported that in 2020 there were fewer traffic collisions overall, but a marked increase in fatalities across the Province. The OPP believes that

the increase in fatalities is attributable to carless and dangerous driving (speeding) of which the pandemic-related transportation network impacts contributed to. The true implications of the pandemic on collisions, traffic volumes and traffic patterns are not fully understood at this time.

The City of Hamilton 2020 Annual Collision Report is the fourth edition and provides a high-level review of collisions occurring on roadways over a five-year span (2016-2020). It is attached to Report PW21047 as Appendix 'A'. Information and statistics being presented should be viewed using a COVID-19 pandemic lens.

The report is divided into two sections with appendices as follows:

- Section 1 – Five Year Collision Trends (2016-2020); and
- Section 2 – Lincoln M. Alexander Parkway (LINC) and Red Hill Valley Parkway (RHVP) Five Year Collision Trends (2016-2020)

The following is a list of notable statistics and trends for 2016-2020:

- 1 collision occurs every 59 minutes;
- 1 person injured every 4 hours;
- 1 fatality every 28 days;
- 1 collision involved a pedestrian every 1.5 days; and
- 1 collision involved a cyclist every 2.25 days.

City-Wide Statistics and Trends

Year	Injury Collisions	Fatal Collisions	Property Damage Collisions	Total Collisions
2016	1936	11	6312	8259
2017	1682	16	7083	8781
2018	1561	11	7761	9333
2019	1469	14	8413	9896
2020	1136	13	5463	6612

There was a 33.2% reduction in total collisions and a 22.5% reduction in injury collisions compared to 2019, however collisions that occurred in 2020 resulted in serious injuries more often.

The percentage of collisions involving injuries versus the total number of collisions increased from 15.0% in 2019 to 17.4% in 2020. During COVID-19, concerns related to speeding and aggressive driving increased across the country and the statistics coincide with this trend.

The number of pedestrians involved in collisions declined by 21.9% (192 total) when compared to 2019.

The number of cyclist collisions increased from 128 in 2019 to 131 in 2020. The lowest number of cyclist collisions in 10 years was recorded in 2019 and there is a generally decreasing trend starting from 2016. No collisions involving cyclists in 2020 resulted in a fatal incident.

Collisions involving vulnerable road users regularly result in injury as 90.7% of the time pedestrians suffer injury in a collision and 78.7% for cyclists. Most of these vulnerable road user injury collisions occurred at intersections, specifically signalized intersections.

Fatal collisions represent 0.2% of all collisions, a review of the fatal collisions over a five-year period show no statistical patterns:

- 58% occurred mid-block locations;
- 42% occurred at intersections;
- 58% were a result of a single motor vehicle collision;
- 32% involved pedestrians; and
- 25% occurred when a driver lost control of their vehicle, 15% speed related collisions (i.e. following too close, speed too fast for condition, and exceeding speed limit), 14% failed right-of-way.

Collisions on the LINC and RHVP involving injuries have significantly declined over the past several years. The following is a list of relevant statistical information:

- Fatal and injury collisions on the LINC/RHVP declined by 83.3%/60.0% in 2020, compared to a decline of 33.3%/34.2% in 2019 from 2018;
- Total collisions occurring on the RHVP on non-dry road surface conditions declined to 57.3% (2016-2020) vs 63.9% (2015-2019) and it is expected these numbers will continue to decline and align with provincial averages; and
- Collisions on the LINC continue to align with the provincial averages.

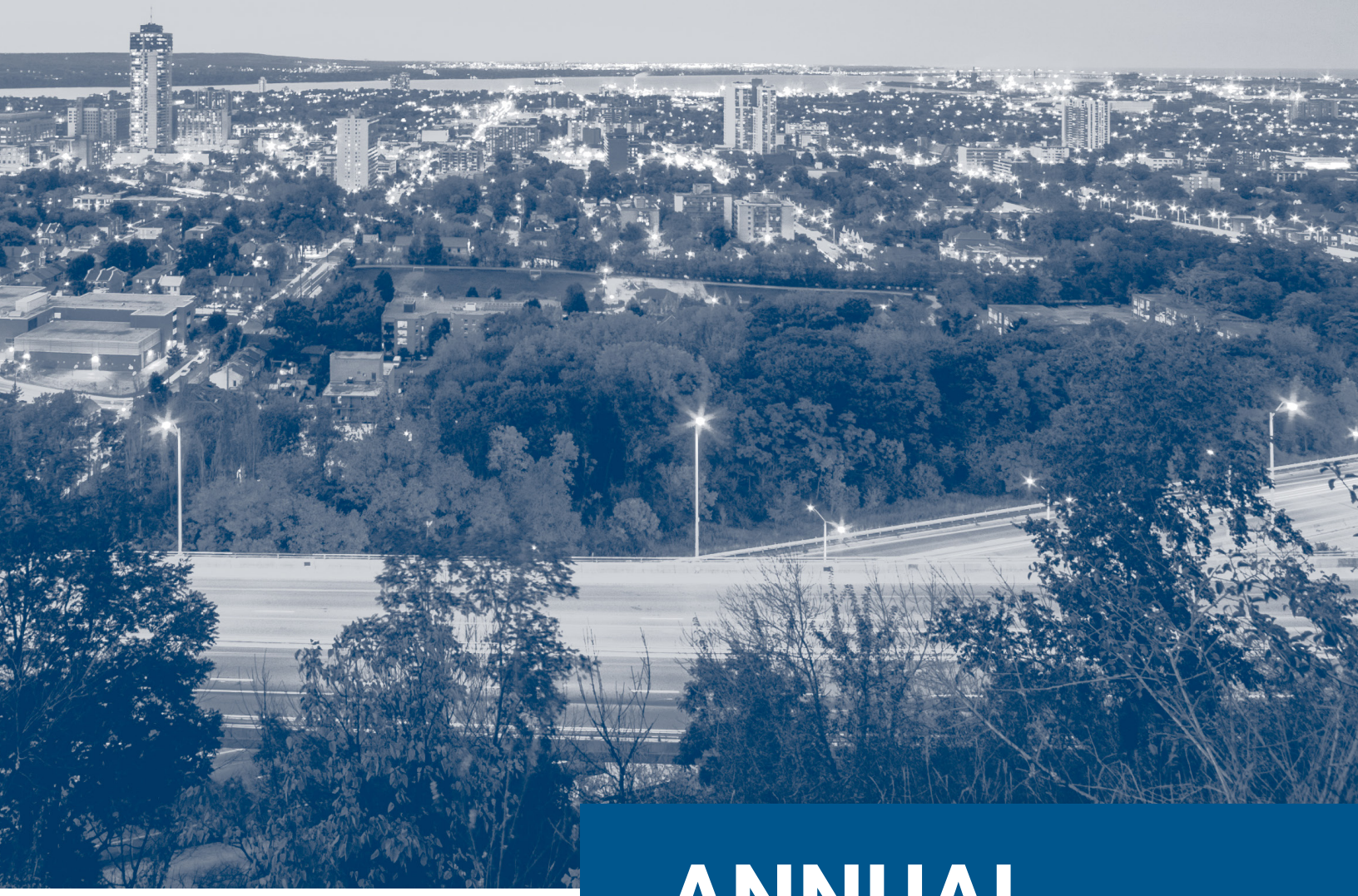
The statistics and analysis within the 2020 Annual Collision Report provides the City of Hamilton with information that is used to identify priority roadway safety issues, develop initiatives to improve roadway safety, provide evidence about the effectiveness of safety improvements and undertake targeted education campaigns.

These efforts directly contribute to improving roadway safety and aligns with Vision Zero – zero fatalities or serious injuries on Hamilton roadways. The overall downward trends in injury collisions align with the primary goal of Hamilton's Vision Zero Program.
The City of Hamilton has undertaken and completed several initiatives that are outlined in the Vision Zero Action Plan. The following is a list of those initiatives:

- Continued development and upgrade to the collision database which improve service, reporting, and eliminating tasks that required excessive extrapolating of data. This resulted in efficiencies that compressed task timelines from approximately 20 weeks to 4 weeks;
- Collision Counter Measure Program – Video Analytics review of 10 signalized intersections with a focus on vulnerable road users;
- Neighbourhood Speed Limit Reduction Program completed over 50 neighbourhoods in Phase 1, on-going implementation of Phase 2 and planning for Phase 3 is expected to begin in the fall of 2021;
- Development of the Hamilton Police Services, Traffic Safety Unit, which is a new unit of 20 members who are specifically focused on roadways safety and enforcement of traffic violations;
- Automated Speed Enforcement Pilot project began in October and staff will be reporting in September with an update and recommendation on the future of the program; and
  Development of the online Vision Zero Dashboard allows staff to report progress on programs but also make collision data and mapping available to the public through the collision data tool: www.hamilton.ca/streets-transportation/driving-traffic/vision-zero-dashboard

APPENDICES AND SCHEDULES ATTACHED

Appendix “A” to Report PW21047 – 2020 Annual Collision Report



ANNUAL COLLISION REPORT 2020

Hamilton
Public Works

Table of Contents

Executive Summary

This report presents an overview of road safety in the City of Hamilton based on the latest five years (2016 - 2020). Where necessary, ten years of collisions (2011-2020) were used to provide the bigger picture. The analysis was conducted for collisions occurring on the City road network. The 2020 collision statistics should be viewed with the COVID-19 pandemic in mind.

The highlights of this report are listed below:

General Collision Trends

The following general collision trends were noted:

- The collision data shows that the total number of collisions has increased over the past 10 years (except for 2020) while the number of fatal and injury collisions has decreased since 2016.
- There was a reduction of 33.2% in the total number of collisions and a reduction of 22.5% in fatal and injury collisions in 2020 compared to 2019.
- There was a reduction of collisions of 54% and 41% on the Lincoln M. Alexander Parkway (LINC) and Red Hill Valley Parkway (RHVP) respectively and a reduction of 83.3% and 60.0% in fatal and injury collisions in 2020 compared to 2019.
- While the City of Hamilton experiences around 8576 collisions per year on average, there were 6612 in 2020.
- The number of fatal collisions has fluctuated between 11 and 20 in the past 10 years without any patterns.
- In 2020, 1,558 people were injured in 1,149 collisions, and among those 13 people were fatally injured.
- Male drivers were involved in more collisions than female drivers across all age groups. Male drivers constituted 63% of all drivers involved in collisions.
- The majority of collisions (74%) occurred on dry surface conditions. Collisions occurred on wet and snow/ice covered road surfaces were 18.8% and 6.9% respectively. This is consistent and even better than provincial averages.
- Percentage of collisions occurred during non-dry conditions on the Red Hill Valley Parkway in 2016-2020 (57.8%) has significantly reduced from 2015-2019 (64.1%). The number of collisions during non-dry conditions on the LINC are consistent with provincial averages and did not reveal any unusual trends.
- The majority of collisions occurred during daylight condition (64.7%). This percentage is less than provincial averages (approximately 72%).
- Single Motor Vehicle (SMV) collisions constituted 42.8% of total collisions on road sections followed by rear-end collisions (22.4%).
- Rear-end collisions were the largest type of collisions (43%) at signalized intersections. This is consistent with other jurisdictions. The second largest type of collision is sideswipe (20.6%).

Temporal Trends

The following temporal trends were noted:

- The largest number of collisions occurred during the months of October, November, December, and January.
- The months June, July, August, September, and October experienced the highest numbers of fatal and injury collisions based on 2016-2020 collision data.
- More collisions and most fatal and injury collisions occurred during Fridays compared to any other day of week, which is consistent with Provincial observations.
- During weekdays, there is a strong correlation between the peak periods of traffic and the number of collisions. In Hamilton, most collisions regardless of their severity occurred in the PM peak of traffic (3:00 PM – 5:00 PM), mid-day peak of traffic (around noon), and AM peak of traffic (8:00 AM – 9:00 AM).
- The pattern of collisions during the weekend are different from the weekdays. The number of collisions during weekends was much lower than weekdays and the hours with the largest number of collisions were spread from 10:00 AM to 6:00 PM.

Spatial Trends

The following spatial trends were noted:

- Urban areas experienced 92% of all collisions and 66% of all fatal collisions based on 2016-2020 data.
- The intersection of King Street East and Victoria Avenue South experienced the highest number of fatal and injury collisions (29 fatal and injury collisions from 2016-2020).
- The section of the Red Hill Valley Parkway Northbound, within the King Street interchange, experienced the largest number of fatal and high injury collisions from 2016-2020.
- The road section along Queenston Road between plaza entrance and Nash Road experienced the second largest number of fatal and injury collisions (22 fatal and injury collisions from 2016-2020).
- The intersection of Dundurn Street South and King Street West experienced the highest number of fatal and injury pedestrian collisions (11 fatal and injury collisions from 2016-2020).
- 60.1% of all collisions occurred at intersections. Among those, 65.8% occurred at signalized intersections and 29.6% occurred at stop controlled intersections.

Vulnerable Road Users

The following trends and observations were noted for pedestrian and cyclist collisions:

- The number of pedestrian collisions has fluctuated between 192 and 295 in the past 10 years. In 2020, the City experienced 192 pedestrian collisions which is 21.7% fewer than 2019 pedestrian collisions.

- The number of cyclist collisions has fluctuated between 128 and 193 in the past 10 years with a generally decreasing trend starting from 2016. In 2020, the number of cyclist collisions increased by 2% compared to 2019. For context, all other collisions decreased in 2020 compared to 2019.
- The largest number of pedestrian collisions occur in the month of January. In most Ontario municipalities, the largest number of pedestrian collisions occurs in November.
- The largest number of cyclist collisions occurred from June to August.
- The largest number of pedestrian and cyclist collisions occur on Tuesdays.
- 90.7% of all pedestrian collisions resulted in an injury in 2016-2020 while 1.7% resulted in a fatality.
- 78.7% of all cyclists involved in a collision sustained injury (including 0.2% fatal injury).
- 71.7% of pedestrian collisions occur at intersections, and among those, 70.9% occur at signalized intersections.
- 65.4% of cyclist collisions occur at intersections among those, 51.9% occur at signalized intersections.
- A review of driver actions involved in pedestrian and cyclist collisions show that 42.8% and 26.5% of drivers failed to provide the right of way to pedestrians and cyclists respectively. Additionally, 12.2% of drivers committed improper turns in cyclist collisions.
- In 25.8% of pedestrian collisions at midblocks (non-intersection locations), pedestrians were walking on road shoulders or sidewalks.

Driver Behaviour

The following road user collision trends were noted:

- Distracted driving was a contributing factor to 17.1% of fatal and injury collisions.
- Drug and alcohol was a contributing factor in 3.4% of fatal and injury collisions.
- Speeding accounted for 17.2% of all police reported collisions. The percentages of speed related collisions on the Lincoln M. Alexander Parkway and the Red Hill Valley Parkway are 41% and 31% respectively.
- The average operating speed along the Red Hill Valley Parkway and the LINC are similar with slight increase in speed in 2020.
- The Hamilton Police Services (HPS) initiated a supplementary voluntary paid duty program in 2019 to increase enforcement on the Red Hill Valley Parkway. This program resulted in 6,554 tickets including 4,706 tickets for speeding in the 80 km/h posted speed limit zone and 625 tickets in the 90 km/h zone.

Disclaimer and Explanation

Self-Reporting of Collisions

The use of the term “reported” or “police reported” collision refers to a collision attended by a member of the Hamilton Police Service who filled out the standard. Provincial reporting form. The term “self-reported” refers to a collision reported by citizens involved in property damage collisions that do not involve damage to private, municipal, or highway property. Self-reported collisions are filed at Collision Reporting Centres (CRC) based on the information provided by the parties involved in the collision.

In this report, all charts and statistics are based on the total collisions (police reported and self-reported collisions) unless otherwise stated.

Collision Data Accuracy and Completeness

The City of Hamilton maintains a database together with Hamilton Police Services of collisions involving motorized vehicles, cyclists, and pedestrians. The database contains information on all recorded collisions from 2008 onward. The data and information in this report is for informational purposes only. While the City strives to provide accurate information, errors may be present, and information may not be complete. Accordingly, the City makes no representation as to the accuracy of the information or its suitability for any purpose and disclaim any liability for omissions or errors that may be contained therein.

Between the preparation of the 2018 and 2019 Annual Collision Reports, the City of Hamilton transitioned to a new collision data management system. This effort included an in-depth review of the quality and accuracy of past data. As a result of this process, some statistics of the past years in this report may differ from the same statistic reported in the past documents.

COVID-19 Pandemic

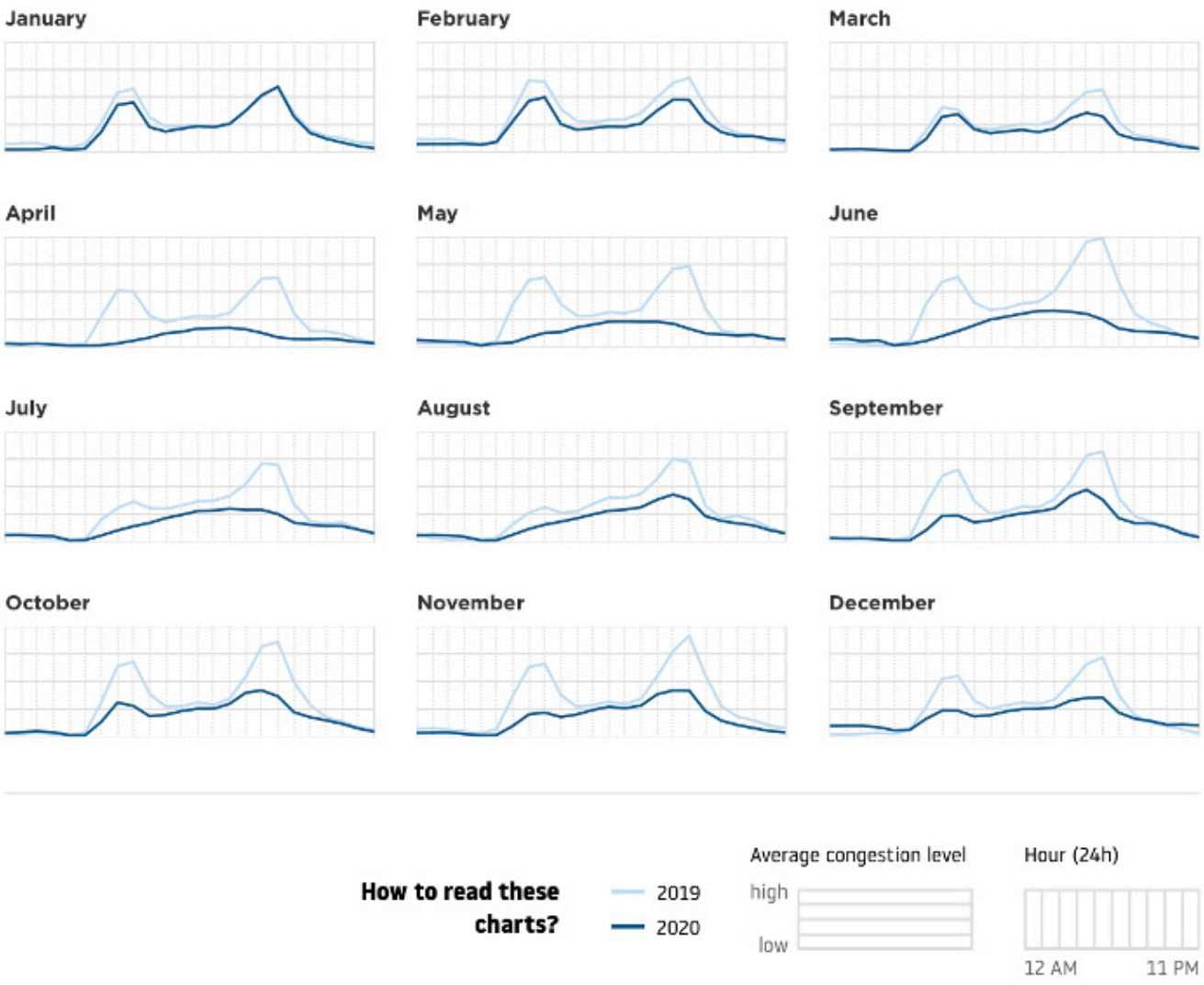
On March 17, 2020, the Government of Ontario declared a state of emergency due to the COVID-19 pandemic and ordered gradual closure of businesses and facilities. As a result of the state of emergency and subsequent stay at home orders from the Province, the City of Hamilton, similar to other jurisdictions in Ontario experienced reduction in vehicular traffic volumes, resulting in a reduction in the number of collisions.

The official 2020 collision statistics have not yet released by the Province. Ontario Provincial Police (OPP) have announced that “there were fewer traffic collisions in 2020 but fatalities reached historic highs[1].” It appears that the total collisions in 2020 decreased by 26% compared to 2019 but the number of fatalities increased by 22% in 2020 compared to 2019. The OPP believes that the increase in fatalities is attributable to careless and dangerous driving (speeding). It should be noted that at the time of the preparation of this report, the pandemic is an ongoing issue in the Province and the stay-at-home order is in effect. The implications of the pandemic on collisions, traffic volumes, and traffic pattern are not yet fully understood. It is quite conceivable that the pandemic may have had a wide variety of impacts on traffic.

The following figure compares the extent of traffic volumes in 2019 and 2020 for each month of year. This figure supports that the City of Hamilton experienced reductions in traffic volumes during the months of April through December in 2020.

1 https://globaLaneews.ca/news/7699349/ontario-provincial-police-traffic-collisions-fatalities-2020/

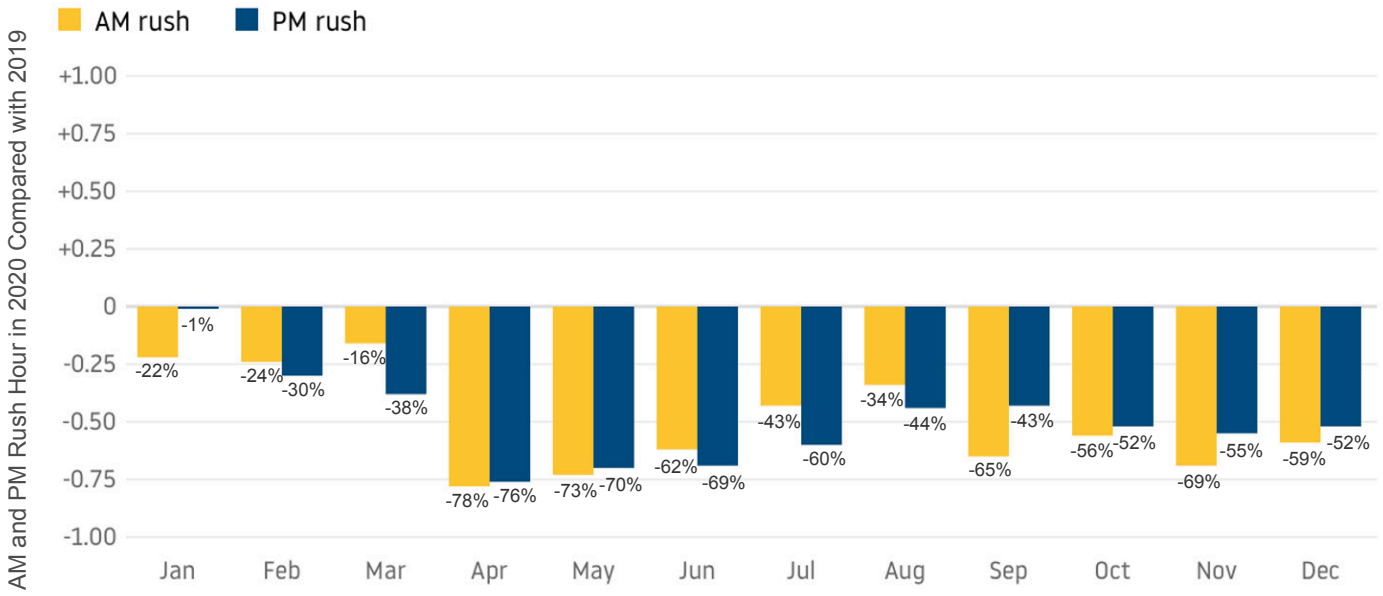
Work Day Travel Patterns by Month



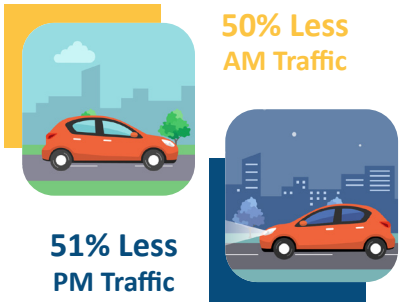
How the travel patterns looked during the work days in 2020 and 2019

Reference: https://www.tomtom.com/en_gb/traffic-index/hamilton-traffic/

The figure below shows the reduction of AM and PM rush hours traffic for each month in 2020 compared to 2019. The level of congestion in the City of Hamilton decreased significantly during the AM and PM rush hours in 2020 compared to 2019 due to the COVID-19 pandemic and the stay-at-home order from the Province. More reduction in the level of congestion was observed April, May, and June.



AM and PM Rush Hours Traffic in 2020 Compared to 2019



Overall, there was approximately a 50 percent average reduction in traffic during the morning and afternoon rush hour.

Reference: https://www.tomtom.com/en_gb/traffic-index/hamilton-traffic/

Introduction

The City of Hamilton is situated in Southern Ontario at the westerly end of Lake Ontario. The population of the City of Hamilton is 536,930 (2016 Statistics Canada Census).

The City of Hamilton road system contains the full spectrum of road types: multi-lane, one-way and two-way arterials, residential local and collector streets, medium and high-speed rural two- lane roads and an 80/90 km/h limited access parkway system. The City road network includes 2,990 kilometers of roads where 66% are in urban areas and 34% are in rural areas.

The geographic area for analysis in this report includes all roads within the Hamilton municipal boundaries, excluding provincially controlled roadways: Queen Elizabeth Way (mainline), Highway 6, Highway 8 from Highway 5 northerly, Highway 5 between Highway 6 and Highway 8/52, Highway 403, on-ramps and off-ramps to Highway 403. Collisions occurring on service roads to the Queen Elizabeth Way are included. Only collisions on City streets or sidewalks are recorded – private property collisions are not included.

This report provides insight into the trends, patterns, and characteristics of collisions occurred on the City road system. This report can assist in identifying potential safety issues and initiating the conversation to identify mitigative actions to improve safety for all road users of all ages.

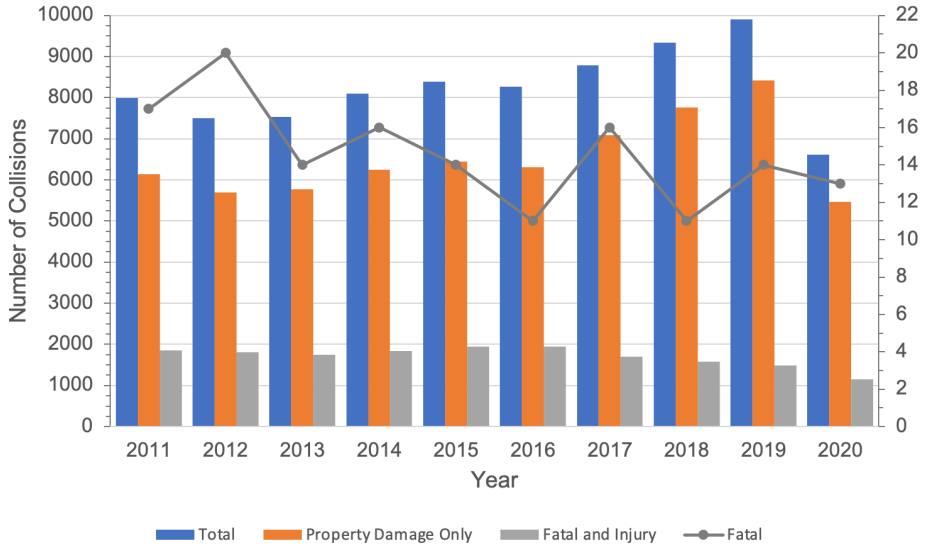
Road safety is a complex and multidisciplinary subject. In the City of Hamilton, many professionals work together to provide a safe transportation system to our residents. These professionals include law enforcement, engineers, planners, public health nurses, student transportation services, transit operators, and educators who work together to provide a safe transportation system to our residents. The Hamilton Strategic Road Safety Program and Vision Zero Action Plan 2019 – 2025 was approved in 2019, which is a holistic data-driven approach to improve road safety through evaluation, engineering, enforcement, education, and engagement.

This report provides statistics based on 2016-2020 collision data. Where necessary, 10-year collision statistics for 2011-2020 are reported.

SECTION 1
Collision Trends (2016-2020)

Frequency and Severity

A review of the City's collision data shows that the total number of collisions has continuously increased in the past 10 years (except for 2020) while the number of fatal and injury collisions has decreased since 2016. The number of fatal collisions fluctuated between 11 and 20 in the past 10 years where the highest occurred in 2012. In 2020, there was a reduction of 33.2% in the total number of collisions and a reduction of 22.5% in fatal and injury collisions compared to 2019. In 2020, the City of Hamilton experienced 13 fatal collisions.



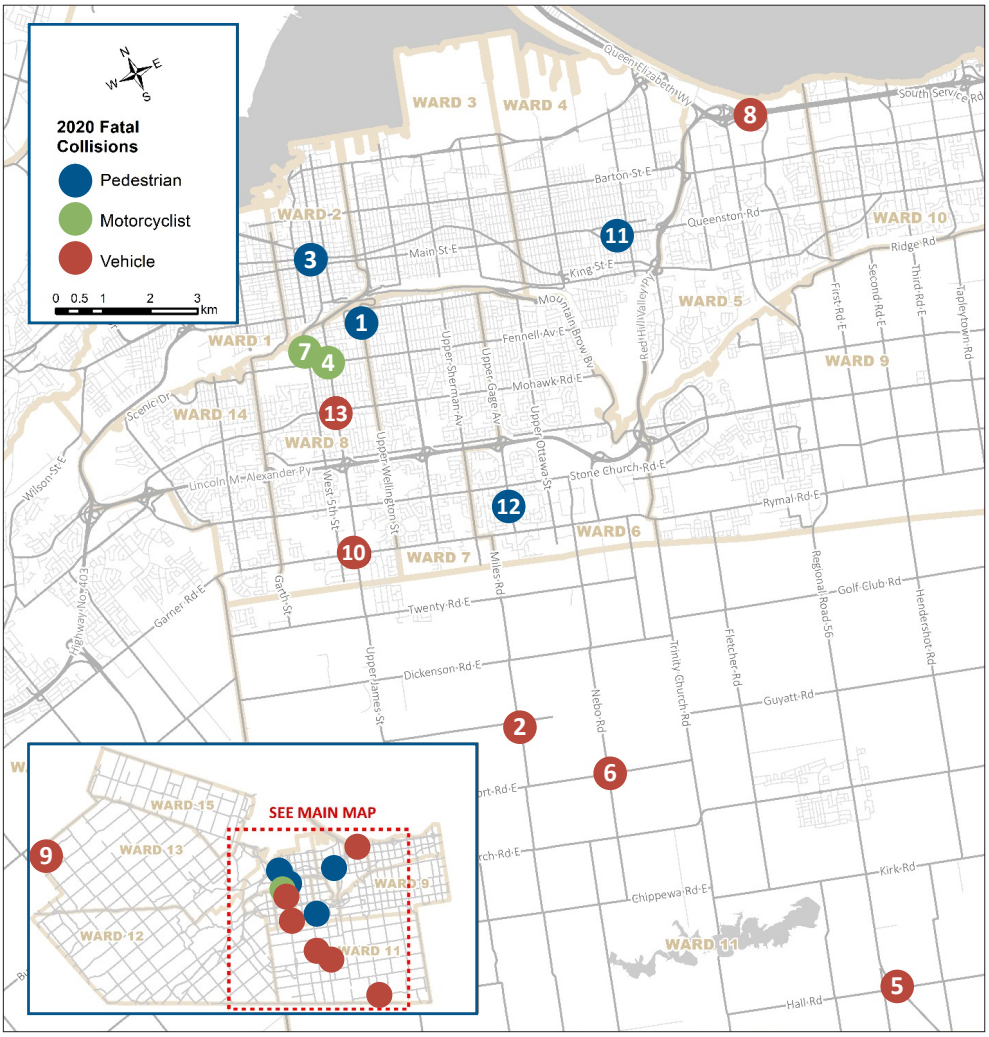
Collisions Frequency (2011-2020)

Year	Total Collisions	Fatal Collisions	Fatal and Injury Collisions	Property Damage Only Collisions
2011	7985	17	1852	6133
2012	7503	20	1815	5688
2013	7529	14	1754	5775
2014	8095	16	1846	6249
2015	8385	14	1945	6440
2016	8259	11	1947	6312
2017	8781	16	1698	7083
2018	9333	11	1572	7761
2019	9896	14	1483	8413
2020	6612	13	1149	5463

In 2020, fatal collisions included seven occupants of vehicles, four pedestrians, and two motorcyclists spread in the City. Eight fatal collisions occurred at intersections and five fatal collisions occurred on road sections. No cyclist experienced fatality in 2020.

The total number of people injured in collisions consistently decreased in the past 5 years. In 2020, 1,558 people were injured in 1,149 collisions and among those, 13 people were fatally injured and 67 suffered from a major injury.

The Map of Locations with Fatal Collisions in 2020



Location and Date of Fatal Collisions in 2020

2020 Fatal Collisions	
1	Upper Wellington Street between Inverness and Vola • January 12, 2020
2	Miles Road between Airport and English Church • March 22, 2020
3	King Street West at Upper James Street • April 7, 2020
4	Fennell Avenue West at Upper James Street • May 16, 2020
5	Hall Road at Regional 56 Road • May 21, 2020
6	Airport Road East at Nebo Road • June 3, 2020
7	Brantdale Avenue at West 5th Street • August 3, 2020
8	South Service Road • August 28, 2020
9	Concession 10 West between Foreman and Pioneer • August 31, 2020
10	Rymal Road West at Upper James Street • October 2, 2020
11	Queenston Road between Isabel and Modena • October 18, 2020
12	Royalvista Drive at Upper Gage Avenue • December 1, 2020
13	Mohawk Road West at Upper James Street • December 22, 2020

Urban areas constituted 92% of all collisions and 66% of fatal collisions based on 2016-2020 data.

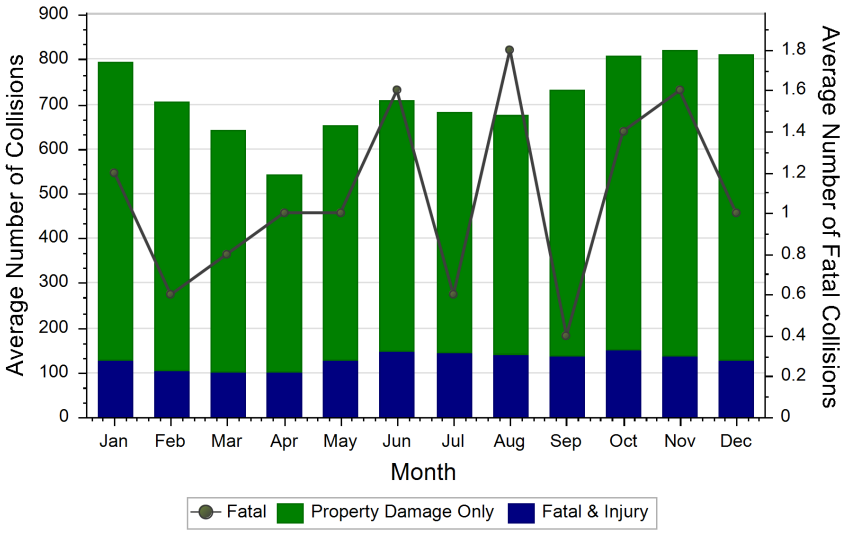
- City of Hamilton experiences around 8576 collisions per year, on average.
- Average number of fatal and injury collisions is 1,570 collisions per year over the last 5 years.
- The number of fatal and injury collisions have been decreasing in the past 5 years on average (1,149).
- The number of people injured in collisions has consistently decreased in the past 5 years.
- The total number of collisions are consistently increasing in Hamilton, 2020 excepted.
- While total number of collisions were reduced by 33.2% in 2020 compared to 2019, the number of fatal and injury collisions were reduced by 22.5%.
- In 2020, 1,558 people injured in 1,149 collisions among those 13 people were fatally injured.

- 39% of collisions occurred during October, November, December and January.
- Most fatal and injury collisions occurred during Fridays.

Month, Day, and Time of Collisions

The largest number of collisions occurred during the months of October, November, December, and January. In fact, 39% of total collisions (2016-2020) took place during these four months which is consistent with Provincial averages.

The months of June, July, August, September, and October experienced the highest numbers of fatal and injury collisions based on 2016-2020 collision data.



Collisions by Month, 5 Year Average (2016-2020)

More collisions and most fatal and injury collisions occurred during Fridays compared to any other day of week, which is similar to Provincial observations.

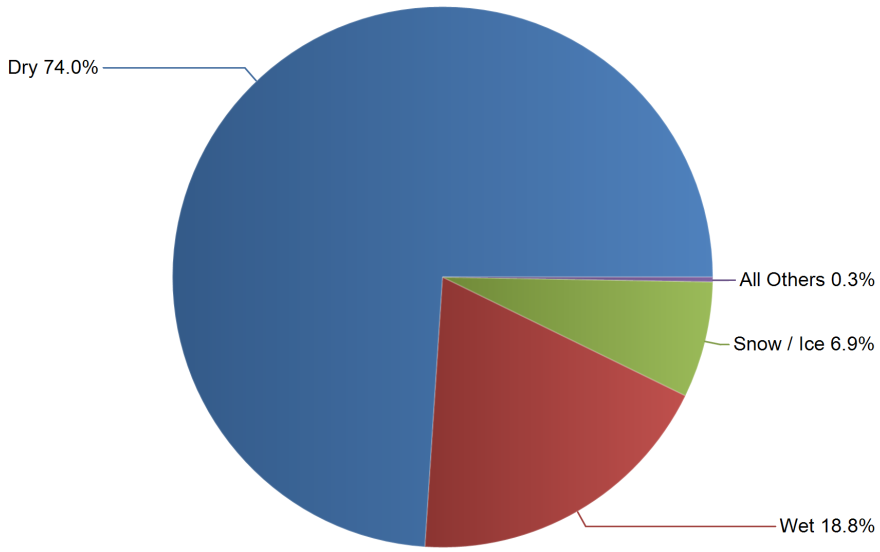
During weekdays, there is a strong correlation between the peak periods of traffic and the number of collisions. Most collisions regardless of their severity occurred in the PM peak of traffic (3:00 PM – 5:00 PM), mid-day peak of traffic (around noon), and AM peak of traffic (8:00 AM – 9:00 AM).

The pattern of collisions during the weekend are different from the weekdays. The number of collisions during weekends was much lower than weekdays and the hours with the largest number of collisions were spread from 10:00 AM to 6:00 PM.

Collisions By Road Surface and Lighting Conditions

Water, ice, or snow reduce the friction between tires and the road surface. The reduced friction can contribute to collisions. A road and drainage designed according to standards in conjunction with proper road maintenance ensures that the rain run-off is quickly drained from the road surface.

The majority of collisions (74%) occurred on dry surface conditions. Collisions that occurred on wet and snow/ice covered road surfaces were 18.8% and 6.9% respectively. These percentages are similar to Provincial averages.



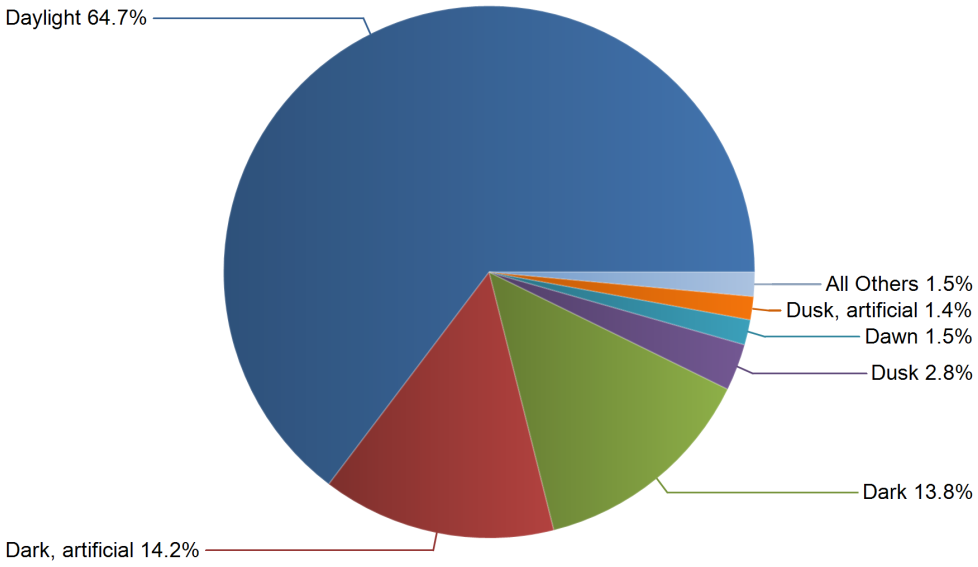
Collisions by Road Surface Condition, 5 Years (2016-2020)

While the majority of collisions occurred during daylight conditions (64.7%) in 2016-2020, this percentage is smaller than that of Provincial averages (approximately 72%).

In urban areas, 16% of all collisions occurred during dark conditions (night or non-illuminated). In rural areas, 35% of all collisions occurred during dark conditions.

- The majority of collisions (74%) occurred on dry surface conditions.
- Collisions occurred on wet and snow/ice covered road surfaces were 18.8% and 6.9% respectively.

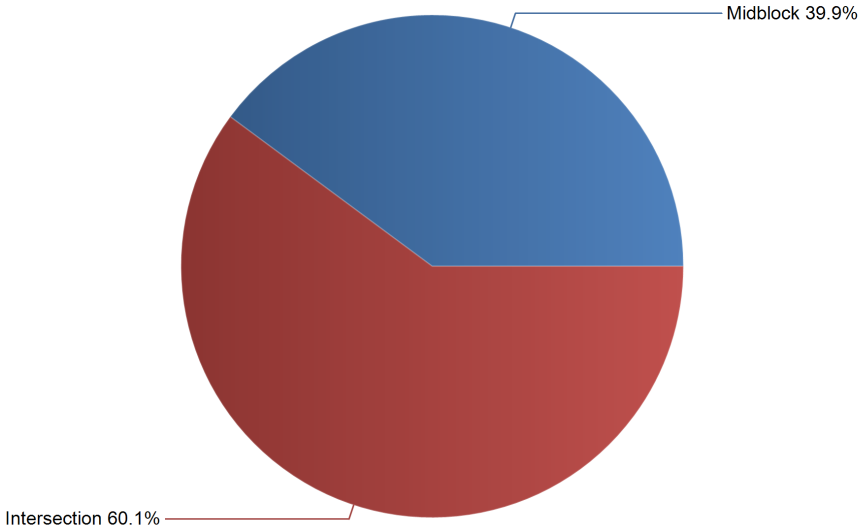
- 64.7% of all collisions occurred during day light conditions. This number is smaller than typical values for Ontario.
- 60.1% of all collisions occurred at intersections. Among those, 65.8% occurred at signalized intersections and 29.6.% occurred at stop controlled intersections.



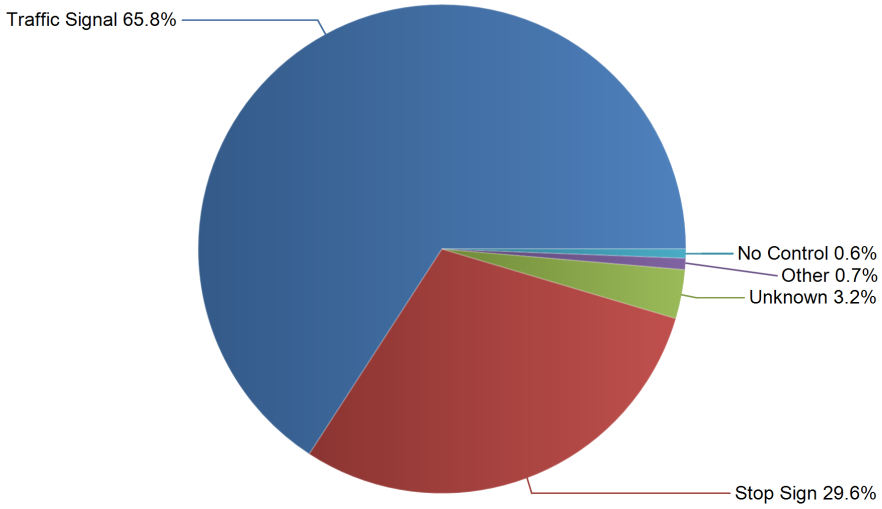
Collisions by Lighting Condition, 5 Years (2016-2020)

Collision Impact Type by Site Type and Traffic Control

Collisions that occurred at intersections or were intersection related constituted more than half of total collisions (60.1%). This observation is consistent with other municipalities as intersections are major conflict points in a transportation network. Among those intersection collisions, more than half took place at signalized intersections.



Collisions by Location, 5 Years (2016-2020)



Intersections Collisions by Traffic Control Type, 5 Years (2016-2020)

A review of fatal and injury collisions at intersections and midblocks shows that more fatal collisions occurred on midblocks but more injury collisions happened at intersections.

Single Motor Vehicle (SMV) collisions (SMV unattended and SMV other[1]) constituted 42.8% of total collisions on midblocks followed by rear-end collisions (22.4%).

Rear-end collisions were the largest type of collisions (43.0%) at signalized intersections. This is consistent with other jurisdictions in Ontario. The second largest type of collision is sideswipe at signalized intersections (20.6%) followed by angle collisions (15.2%). In most municipalities, the percentage of angle collisions is the second largest at signalized intersections. It appears that the City of Hamilton experienced usually high proportion of sideswipe collisions at signalized intersection.

At stop controlled intersections, angle collisions were the largest type of collisions (29.2%) followed by rear-end collisions (26.3%).

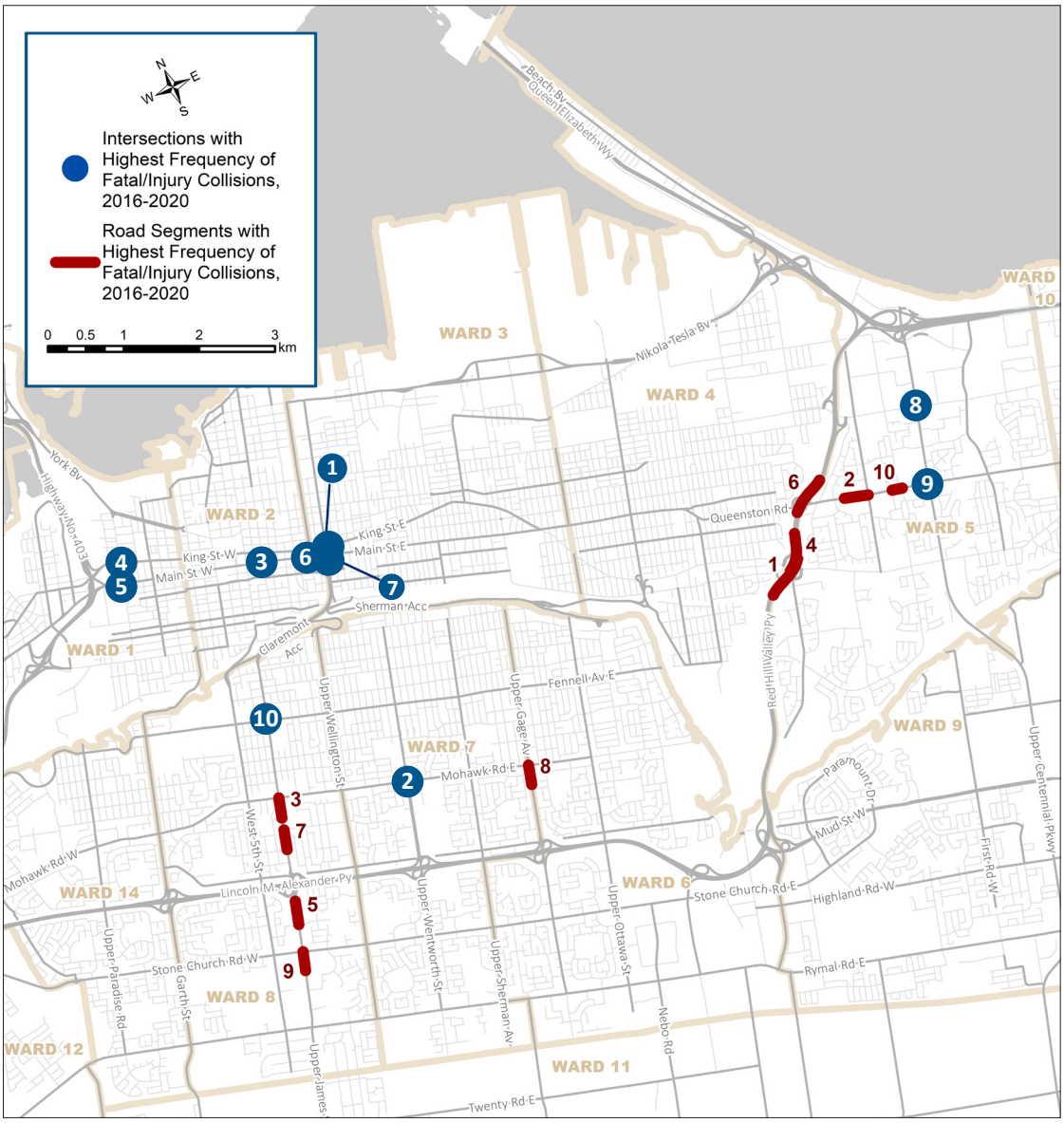
- Rear-end collisions were the largest type of collisions (43.0%) at signalized intersections followed by sideswipe collisions (20.6%). It appears that the proportion of sideswipe collisions at signalized intersections are unusually high.
- Angle collisions were the largest type of collisions (29.2.%) at stop controlled intersections followed by rear end collisions (26.3%).
- 42.8 % of total collisions on midblocks are SMV collisions followed by rear-end collisions (22.4%).

1 Single motor vehicle (SMV) unattended collisions occur when a vehicle strikes a vehicle unattended by its driver. Include parked, stopped, disabled, abandoned and runaway vehicles, provided it was not under the car and control of a driver. Does not include vehicles stopped for traffic or standing while loading or unloading passengers or cargo. Single motor vehicle (SMV) other refers to collisions where a single motor vehicle initially collides with a fixed object, pedestrian or animal.

High Frequency Locations

A review of the City's collision data shows that the total number of collisions have been increasing in the past 10 years (except for 2020) while the number of fatal and injury collisions started to decrease from 2016. In 2020, a reduction of 33.2% in total number of collisions compared to 2019 was observed.

Map of Intersections and Road Segments with Highest Frequency of Fatal and Injury Collisions, 5 Year Average (2016-2020)



Intersections and Road Segments with Highest Frequency of Fatal and Injury Collisions, 5 Year Average (2016-2020)

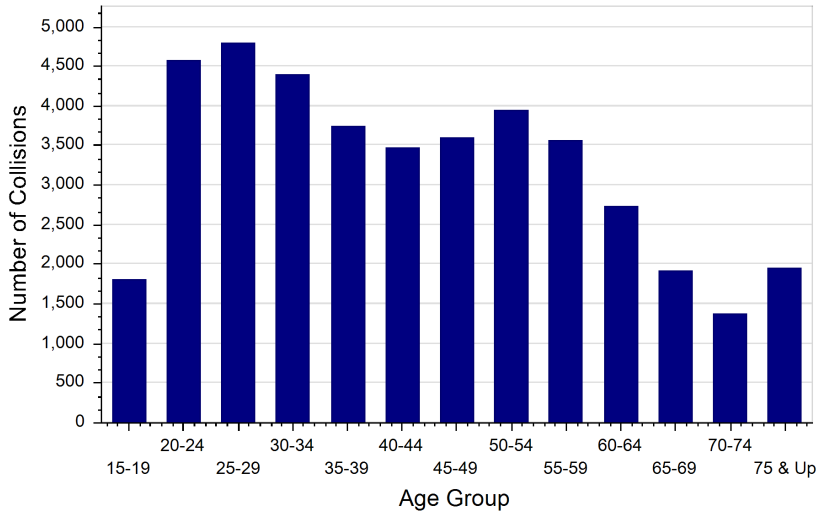
	Intersection	Collision Frequency
1	King Street East at Victoria Avenue South	29
2	Mohawk Road East at Upper Wentworth Street	28
3	John Street South at Main Street East	27
4	Dundurn Street South at King Street West	26
5	Dundurn Street South at Main Street West	25
6	Main Street East at Wellington Street South	25
7	Main Street East at Victoria Avenue South	24
8	Barton Street East at Centennial Parkway North	23
9	Centennial Parkway South at Queenston Road	23
10	Fennell Avenue West at Upper James Street	23

	Road Segments	Collision Frequency
1	Red Hill Valley Parkway Northbound between Ramp King to Red Hill Valley Parkway Northbound and Ramp Red Hill Valley Parkway Northbound to King	26
2	Queenston Road between Nash Road North and Plaza Entrance	22
3	Upper James Street between Lotus Avenue and Mohawk Road East	20
4	Red Hill Valley Parkway Southbound between Ramp King to Red Hill Valley Parkway Southbound and Ramp Red Hill Valley Parkway Southbound to King	18
5	Upper James Street between Blossom Lane and Ramp Upper James Northbound to the Lincoln M. Alexander Parkway Eastbound	14
6	Red Hill Valley Parkway Southbound between Ramp Queenston to Red Hill Valley Parkway Southbound and Ramp Red Hill Valley Parkway Southbound to Queenston Road	13
7	Upper James Street between Hester Street and Jameston Avenue	13
8	Upper Gage Avenue between Foley Street and Mohawk Road East	12
9	Upper James Street between Plaza Entrance and Stone Church Road East	12
10	Queenston Road between Clapham Road and Greenford Drive	11

- 33% of all drivers were 20-34 years old.
- Drug and alcohol contributed to 6% of all collisions in 2016-2020.
- Drug and alcohol contributed to 3.4% of fatal and injury collisions in 2016-2020.

Drivers

Research shows that among the three factors of drivers, roads, and vehicles, drivers have the largest contribution to collisions. A review of the ages of all drives involved in collisions show that 33% of all drivers age were between 20 and 34 years old. Also, significantly more number of male drivers are involved in collisions than female drivers.

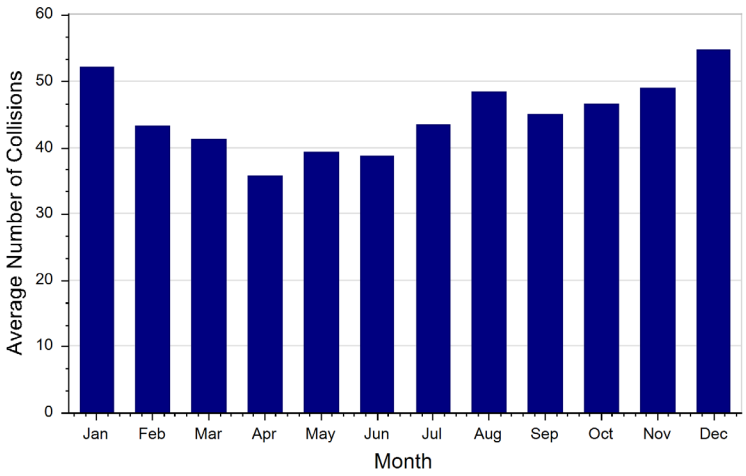


Collisions by Driver Age, 5 Years (2016-2020)

Distracted driving is one of the leading contributing factors to collisions in many jurisdictions including the Province of Ontario. It is difficult to identify whether a driver, cyclist, or pedestrian was distracted at the time of a collision. Based on the observations made by the police officers, in 16.7% of all collisions and in 17.1% of fatal and injury collisions, drivers were inattentive (distracted) in 2016-2020. It is quite conceivable that the actual percentage of distracted driving collisions is likely higher.

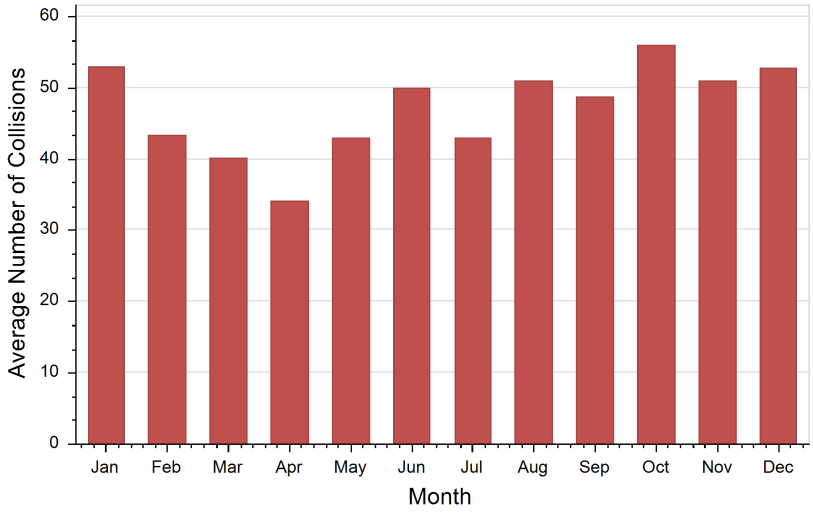
A review of driver conditions show that drug and alcohol likely contributed to 6% of total collisions and 3.4% of fatal and injury collisions.

Several factors might contribute to drivers losing control and resulting in collisions including distraction, speeding too fast for conditions, road surface conditions, lack of adequate warnings, vehicles mechanical deficiencies, among others. It appears that the winter months (January and December) experienced the largest number of collisions resulting from drivers losing control. Overall, the lost control type collisions constituted 16% of all police reported collisions.



Lost Control Collisions by Month,
5 Year Average (2016-2020) - Police Reported

If the police officer attending to a collision scene reported that at least one of the drivers involved in the collision committed (1) following too close, (2) speed too fast, or (3) exceeding speed limit, the collision is categorized as speed related. These factors are all an indication of aggressive driving where drivers choose speeds too fast for road surface conditions, congestion, or road geometry. Speeding related collisions were 17.2% of police reported collisions in 2016-2020. The months of January and October experienced the largest number of speeding related collisions.



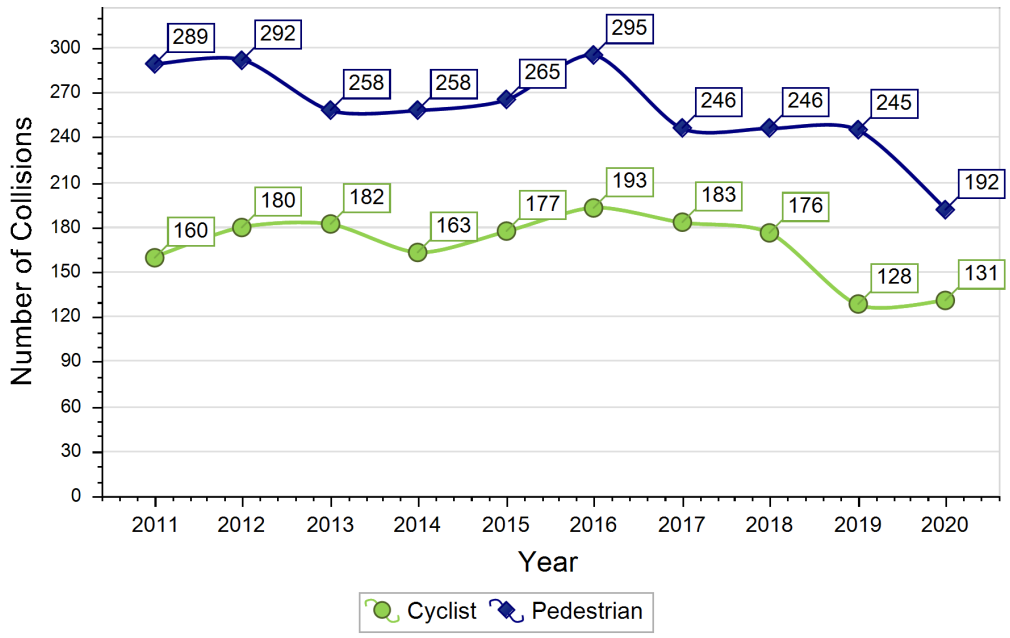
Speed Related Collisions by Month, 5 Year Average (2016-2020)

- 17.1% of fatal and injury collisions, drivers were inattentive (distracted).
- Months of January and December experienced the largest number of lost control type collisions.
- 16% of police reported collisions, drivers lost control of their vehicle.
- Speeding related collisions account for 17.2% of all police reported collisions.

Pedestrian and Cyclist Collisions

Pedestrians and cyclist collisions often result in injury or fatality. The City strives to create a safe road network for pedestrians and cyclists. The number of pedestrian collisions fluctuated between 192 and 295 in the past 10 years. In 2020, the City experienced 192 pedestrian collisions which is 21.7% less than 2019. It should be noted that total collisions reduced 33.2% in 2020 compared to 2019. The number of pedestrian collisions were not reduced as much as the total number of collisions.

The number of cyclist collisions has fluctuated between 128 and 193 in the past 10 years with a generally decreasing trend starting from 2016. In 2020, the number of cyclist collisions increased by 2% compared to 2019. All other collisions decreased in 2020 compared to 2019.

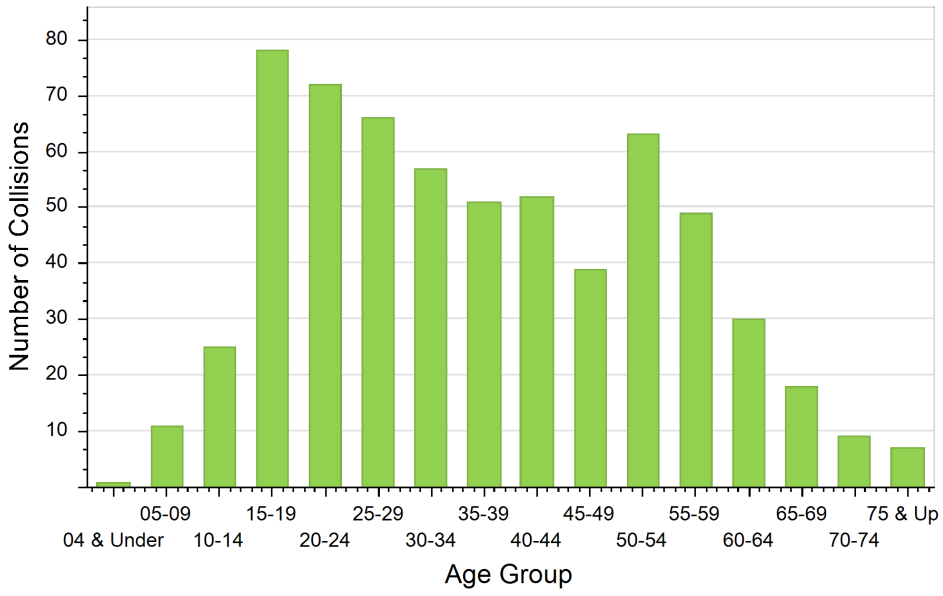


Collisions Involving Pedestrians and Cyclists (2011-2020)

The largest number of pedestrian collisions occurred in the month of January followed by October in 2016-2020. In most Ontario municipalities, the largest number of pedestrian collisions occurs in November. The largest number of cyclist collisions occurred from June to August when cycling is generally a more frequent form of transportation compared to other months.

Tuesdays experienced the largest numbers of pedestrian and cyclist collisions among all days of a week in 2016-2020.

Cyclists in the age group of 15-19 experienced the largest number of cyclist collisions followed by 20-24 age groups.

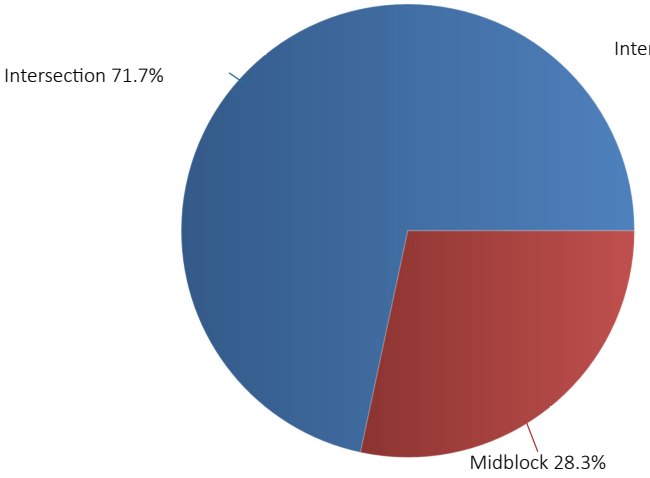


Cyclist Collisions by Cyclist Age, 5 Years (2016-2020)

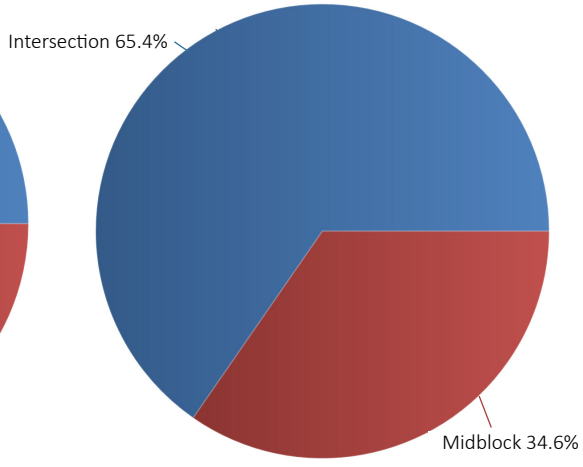
- 192 pedestrian collisions occurred in 2020
- 128 cyclist collisions occurred in 2019, the lowest in the past 5 years
- The number of cyclist collision increased in 2020 compared to 2019 during the pandemic.
- January and October experienced the largest number of pedestrian collisions
- June to August experienced the largest number of cyclist collisions

90.7% of all pedestrian collisions resulted in injury in 2016-2020 while 1.7% resulted in fatality. 78.7% of all cyclists involved in a collision sustained injury (including 0.2% fatal injury).

A majority of pedestrian and cyclist collisions occurred at intersections (71.7% and 65.4% respectively). Among those pedestrian collisions occurred at intersections, 70.9% occurred at signalized intersections while 28.2% took place at stop controlled intersections. 51.9% of cyclist collisions occurred at intersections happened at signalized intersections. This percentage for those occurred at stop controlled intersections is 45.3%.



Collisions Involving Pedestrian by Location, 5 Year Average (2016-2020)

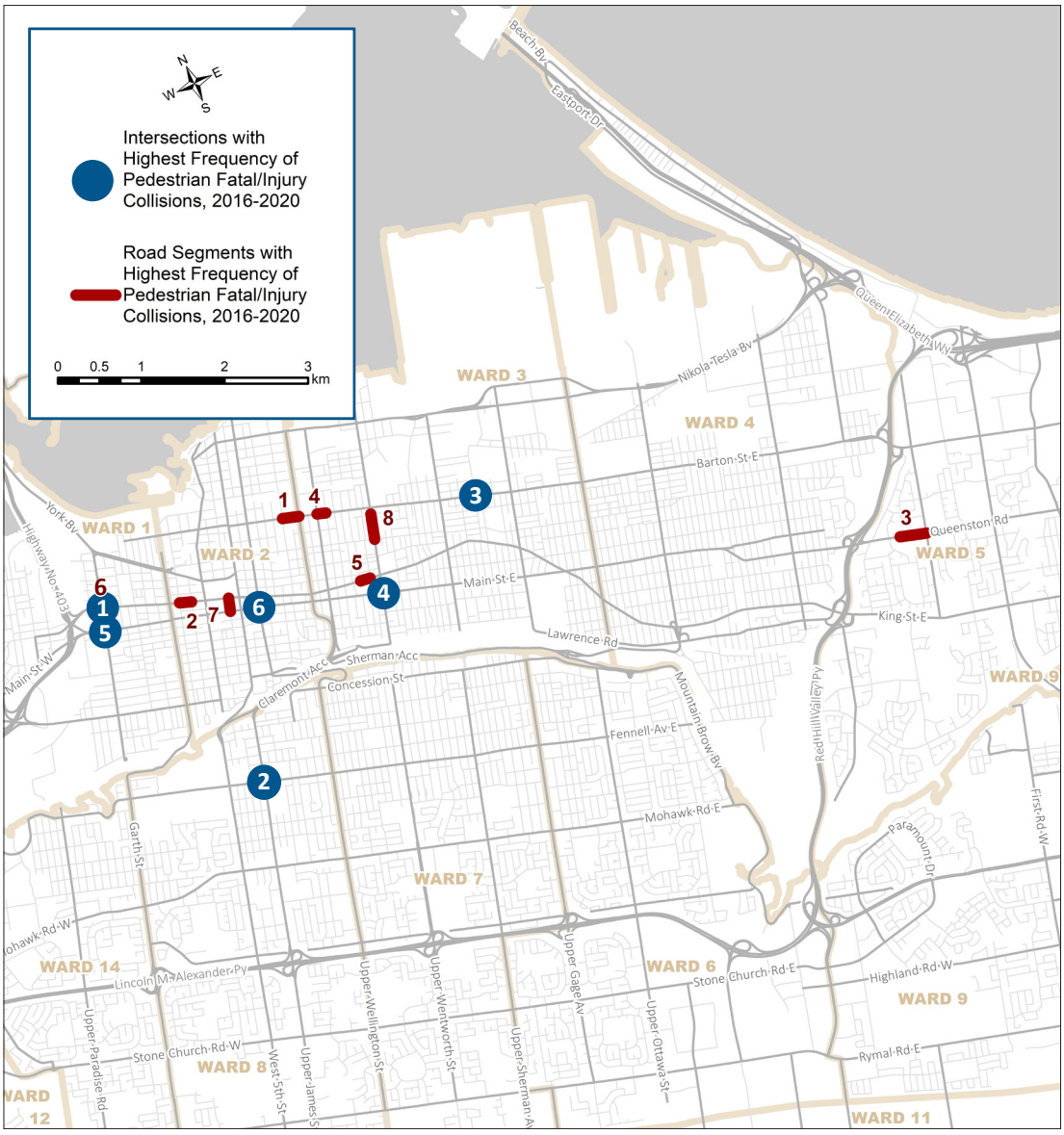


Collisions Involving Cyclist by Location, 5 Year Average (2016-2020)

A review of driver actions involved in pedestrian and cyclist collisions show that 42.8% and 26.5% of drivers failed the right of way to pedestrians and cyclists respectively. Additionally, 12.2% of drivers committed improper turns in cyclist collisions.

In 25.8% of pedestrian collisions at midblocks (non-intersection locations), pedestrians were walking on road shoulders or sidewalks. This observation can potentially be used to add or improve sidewalks. Also, in 17.7% of pedestrian collisions at midblock locations, the pedestrian did not have right of way (i.e. jay walking). In 10.9% of cyclist collisions, the cyclists failed to yield the right of way to vehicles.

Map of Intersections and Road Segments with the Highest Frequency of Pedestrian Fatal and Injury Collisions, 5 Year Average (2016-2020)

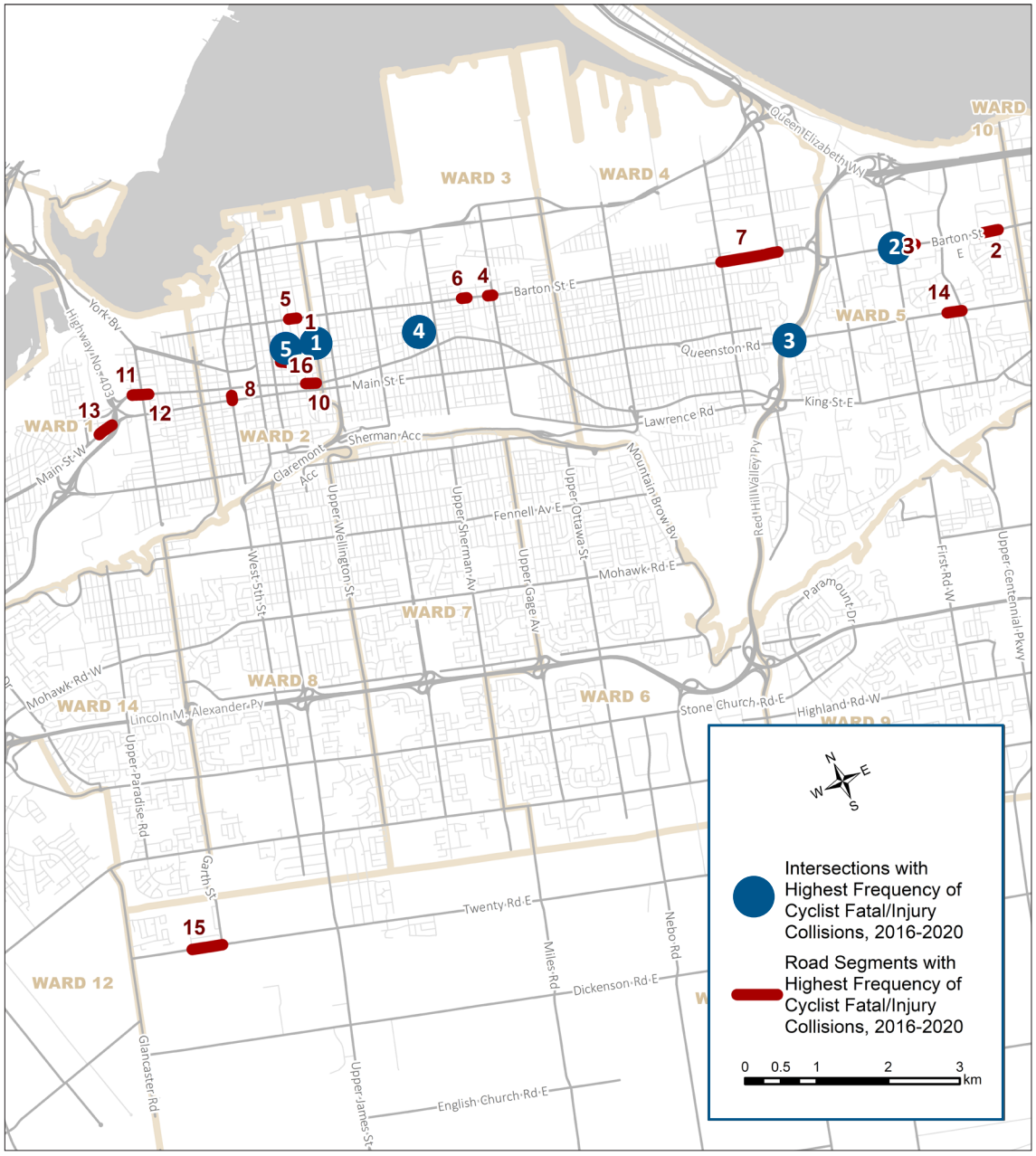


Intersections and Road Segments with the Highest Frequency of Pedestrian Fatal and Injury Collisions, 5 Year Average (2016-2020)

	Intersections	Collision Frequency
1	Dundurn Street South at King Street West	11
2	Fennell Avenue West at Upper James Street	9
3	Barton Street East at Lottridge Street	8
4	Main Street East at Wentworth Street South	7
5	Dundurn Street South at Main Street West	7
6	John Street South at Main Street East	7

	Road Segments	Collision Frequency
1	Barton Street East between Ferguson and Wellington Street North	4
2	King Street West between Caroline Street South and Hess Street South	4
3	Queenston Road between Nash Road North and Plaza Entrance	4
4	Barton Street East between East Avenue North and Victoria Avenue North	3
5	King Street East between Ashley and Steven Street	3
6	King Street West between Dundurn and New Street	3
7	Macnab Street South between King Street West and Main Street West	3
8	Wentworth Street North between Bristol Street and Cannon Street East	3

Map of Intersections and Road Segments with the Highest Frequency of Cyclist Fatal and Injury Collisions, 5 Years (2016-2020)



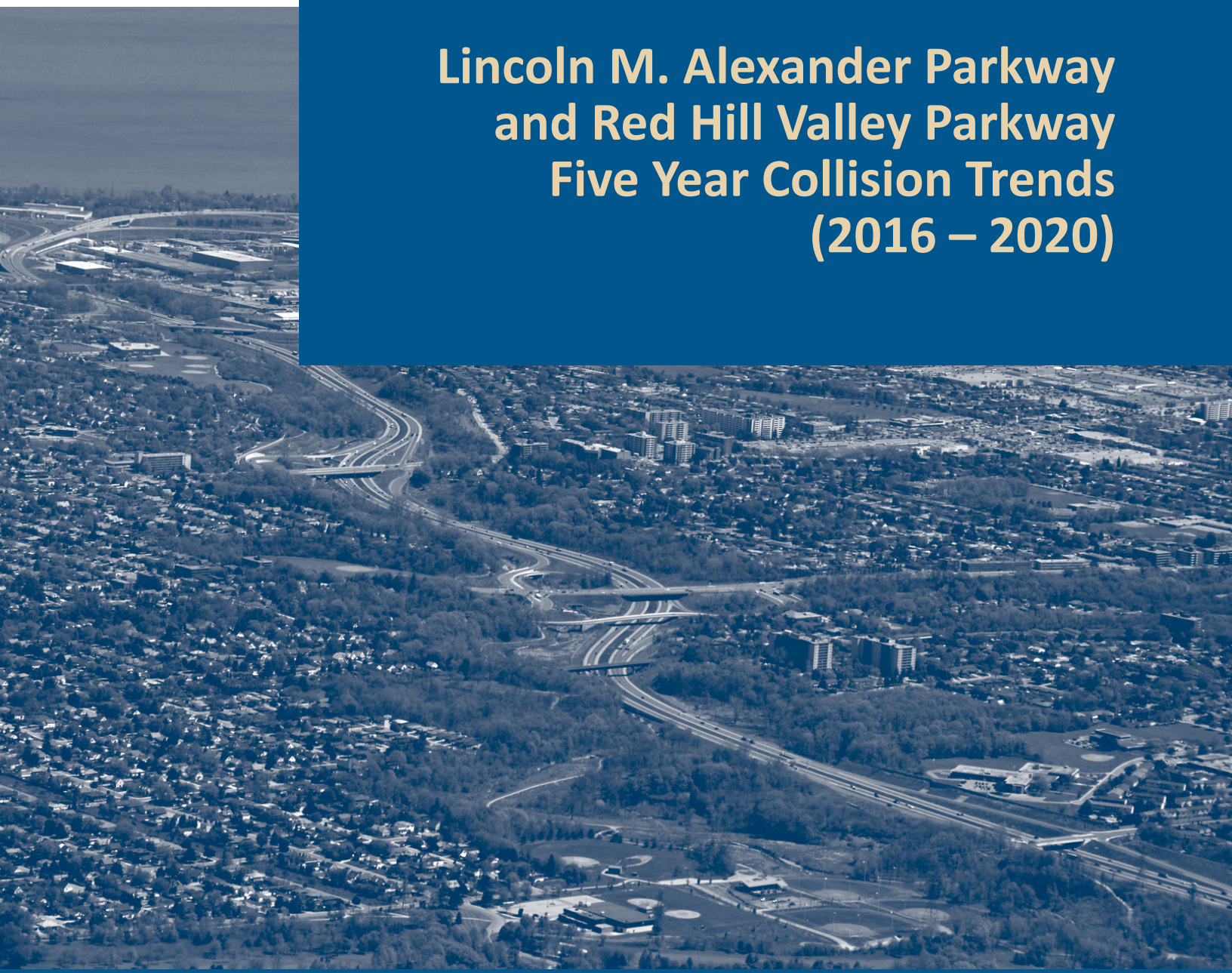
Intersections and Road Segments with the Highest Frequency of Cyclist Fatal and Injury Collisions, 5 Years (2016-2020)

	Intersections	Collision Frequency
1	Cannon Street East at Wellington Street North	9
2	Barton Street East at Centennial Parkway North	6
3	Queenston Road at Ramp Queenston Eastbound to Red Hill Valley Parkway Northbound	5
4	Cannon Street East at Gibson Avenue	5
5	Cannon Street East at Mary Street	5

	Road Segments	Collision Frequency
1	Cannon Street East between Wellington Street North and West Avenue North	3
2	Barton Street East between Bellmanor Street and Brockley Drive	2
3	Barton Street East between Centennial Parkway North and Covington Street	2
4	Barton Street East between Connaught Avenue North and Gage Avenue North	2
5	Barton Street East between Elgin Street and Ferguson Avenue North	2
6	Barton Street East between Lottridge Street and Melrose Avenue North	2
7	Barton Street East between Parkdale Avenue North and Woodward Avenue	2
8	Bay Street South between George Street and Main Street West	2
9	Cootes Drive between Main Street West and Ramp Main Wesbound to Cootes Northbound	2
10	King Street East between Ferguson Avenue North and Spring Street	2
11	King Street West between Breadalbane Street and Dundurn Street South	2
12	King Street West between Dundurn Street South and New Street	2
13	Main Street West between Macklin Street South and Hwy 403 Bridge	2
14	Queenston Road between Lake Avenue Drive and Club entrance	2
15	Twenty Road West between Garth Street and Silverbirch Blvd.	2
16	Wilson Street between Catharine Street North and Mary Street	2

SECTION 2

Lincoln M. Alexander Parkway and Red Hill Valley Parkway Five Year Collision Trends (2016 – 2020)



The Lincoln M. Alexander Parkway (LINC) is an important inter-City commuter connection between several major north/south arterials in the upper City's road network. The road also serves as a connection between Highway 403 and the Red Hill Valley Parkway(RHVP)/ the Queen Elizabeth Way (QEW). The LINC was opened to traffic in 1997 with five full access interchanges and the posted speed limit of 90 km/hr.

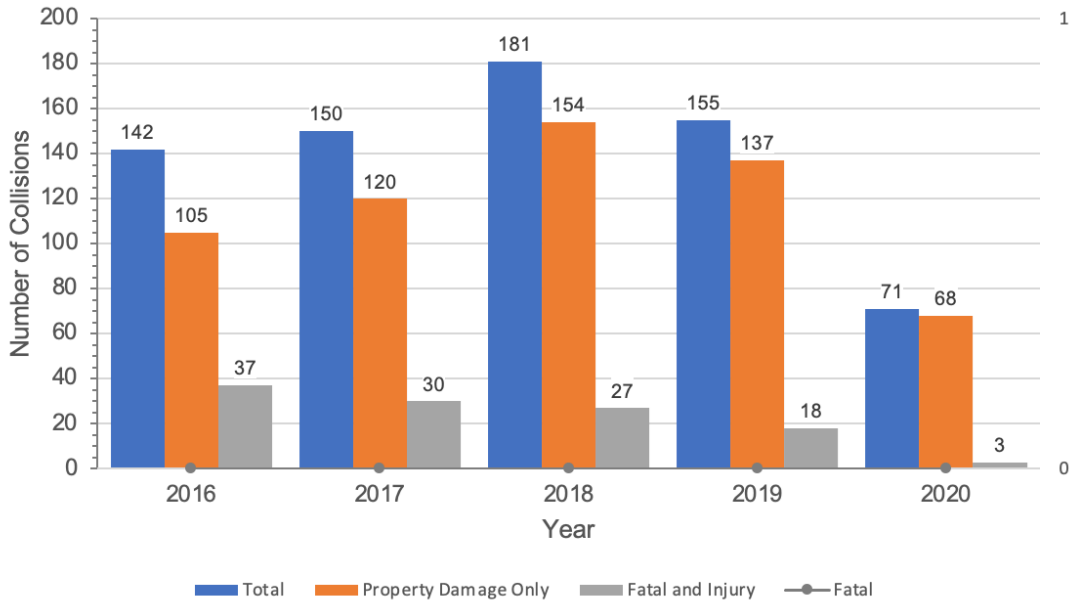
The Red Hill Valley Parkway (RHVP) forms part of a continuous connection from Highway 403 and the QEW in conjunction with the LINC. The RHVP was opened to traffic in 2007. The RHVP serves both intra-city traffic and inter-city traffic connecting the City to Niagara Region and South West Ontario. The RHVP includes six full access interchanges of various design types. In February, 2019, the City reduced the posted speed limit from 90 km/ hr to 80 km/hr on the RHVP between the QEW and Greenhill Avenue.

Frequency and Severity

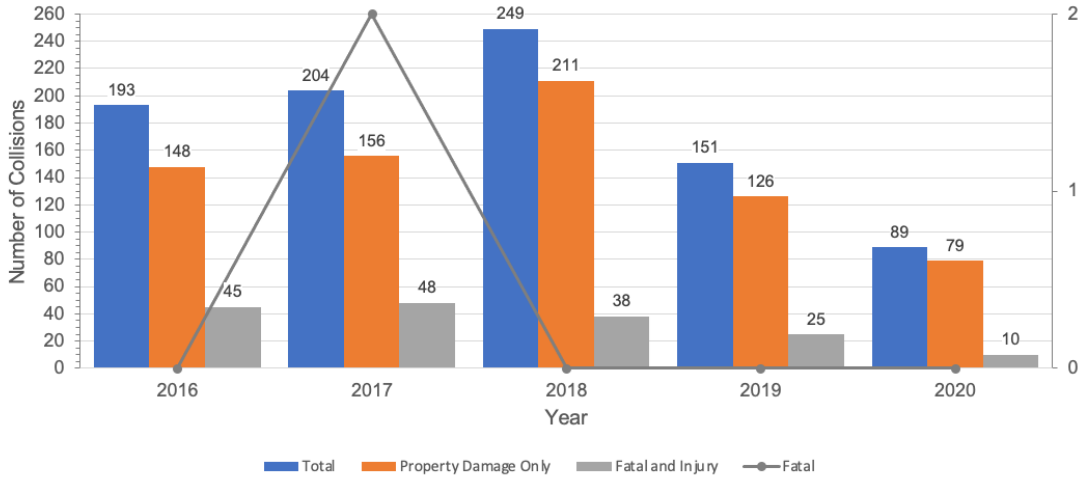
A review of the severity of collisions over the latest five years (2016-2020) identified that the frequency of fatal and injury collisions has decreased on the LINC and the RHVP. It should be noted that in 2019 the RHVP was resurfaced and road safety enhancements were implemented. The number of collisions on the LINC and the RHVP during 2019 should be treated within this context.

The reduction of collisions both on the LINC and the RHVP in 2020 is higher than the reduction of collisions in the entire City. There was a reduction of collisions of 54% and 41% on the LINC and RHVP respectively and a reduction of 83.3% and 60.0% in fatal and injury collisions compared to 2019. There are likely a multitude of factors contributing to these reductions including:

- Hamilton Police Services significantly increased their presence and enforcement activities on the LINC and the RHVP in 2019 and 2020,
- It is quite conceivable that the traffic volumes along the LINC and RHVP decreased more than the average traffic volume within the City of Hamilton due to the reduction of the inter-city traffic on Provincial Highways, and
- The City of Hamilton implemented a number of engineering enhancement measures on the RHVP (resurfacing, guide rail upgrades, delineation signage, lane markings), changed the speed limit to 80 km/hr on a portion of the RHVP and undertook a number of community education campaigns including speeding and distracted driving to increase public awareness regarding roadway safety on the LINC and RHVP.



Collisions Frequency - LINC (2016-2020)

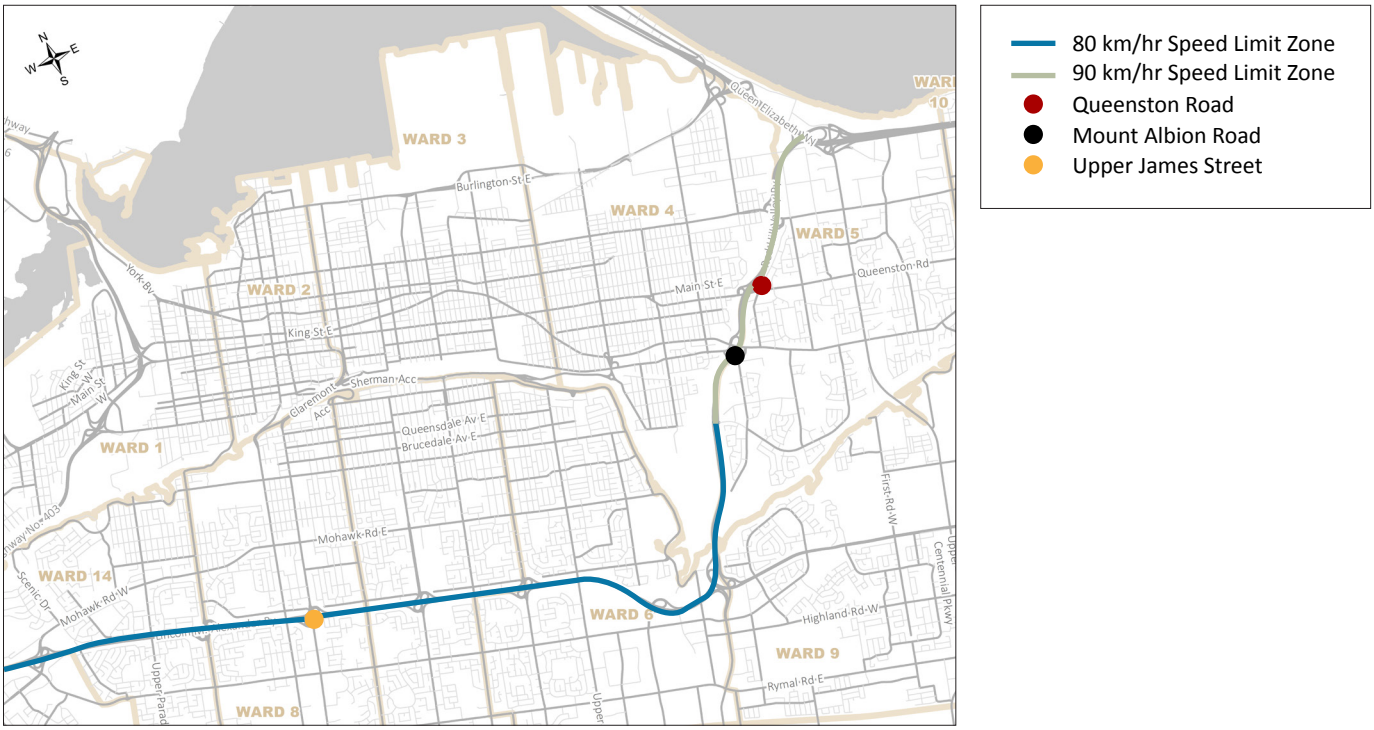


Collisions Frequency - Red Hill Valley Parkway (2016-2020)

Speed and Enforcement

The following figure shows the average operating speed of vehicles[1] in 2019 and 2020 for each direction of travel at specific locations along the LINC and RHVP where the City has installed sensors. In February, 2019, the posted speed limit was reduced from 90 km/ hr to 80 km/hr on the RHVP between the QEW and Greenhill Avenue.

A review of speed data collected on the LINC in 2018 revealed that the average operating speeds on the LINC for the westbound and eastbound directions were 98.39 km/h and 98.73 km/h, respectively. The average operating speeds in 2018 on the RHVP for the northbound and southbound directions were 106.08 km/h and 103.87 km/h, respectively. A comparison between the 2018 and 2020 operating speed data on the RHVP shows that the operating speeds for both directions have decreased by more than 15 km/h.



Average Operating Speeds on RHVP and LINC

Location	Average Speed in 2019 (km/h)	Average Speed in 2020 (km/hr)
RHVP Southbound at Queenston Road	91.32	89.58
RHVP Southbound at Mount Albion Road	90.90	89.78
LINC Westbound at Upper James Street	92.19	91.86

Average Operating Speeds on RHVP and LINC

Location	Average Speed in 2019 (km/h)	Average Speed in 2020 (km/hr)
LINC Eastbound at Upper James Street	100.12	100.64
RHVP Northbound at Mount Albion Road	87.43	88.27
RHVP Northbound at Queenston Road	85.68	88.94

1 Operating speed is referred to the speed at which 15% of drivers choose to exceed per day (85th percentile speed)

The Hamilton Police Services (HPS) commenced a targeted enforcement program along the RHVP on March 25, 2019, in conjunction with City's engineering road safety enhancements and educational campaigns. This initiative was a voluntary paid duty enforcement program funded by the City of Hamilton to supplement the ongoing planned enforcement of the HPS. This program utilized two officers per day, working up to 6 hours, covering 9:00 AM to 9 PM. During this program, 4,300 hours of additional enforcement were used on the RHVP resulting in 6,554 tickets (provincial offence notices) issued. Among those tickets, 4,706 were issued for speeding in the 80 km/h zone (RHVP between the QEW and Greenhill Avenue) and 625 in the 90 km/h zone of the RHVP. Notwithstanding the conclusion of the voluntary paid duty program on April 28, 2020, the HPS continues to have a more prominent presence on the LINC and RHVP by deploying support from Division 20 and Division 30 of the HPS.

Provincial Offence Notices Issued - 2019 and 2020 Voluntary Paid Duty Program along RHVP

Offences	Provincial Offence Notices Issued
Speeding in the 80 km/h Zone	4,706
Speeding in the 90 km/h Zone	625
Distracted Driving	18
Racing/Stunting	26
Suspended Drivers	53
No Insurance	34
Other Provincial Offences	1,092
Total	**6,554**

Month, Day, and Time of Collisions

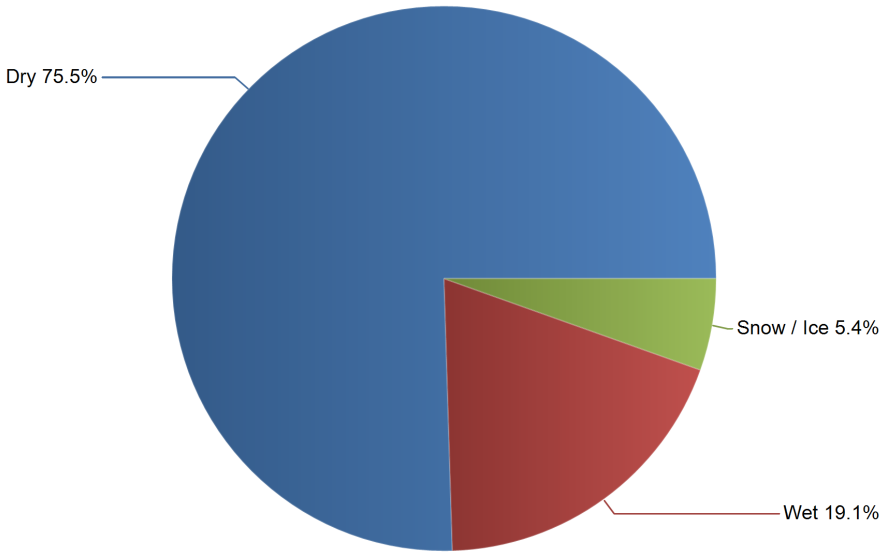
The largest number of collisions on the LINC took place in the month of November while the largest number of collisions occurred during the month of October on the RHVP from 2016-2020.

Thursdays and Fridays had the largest number of collisions on the LINC the RHVP respectively.

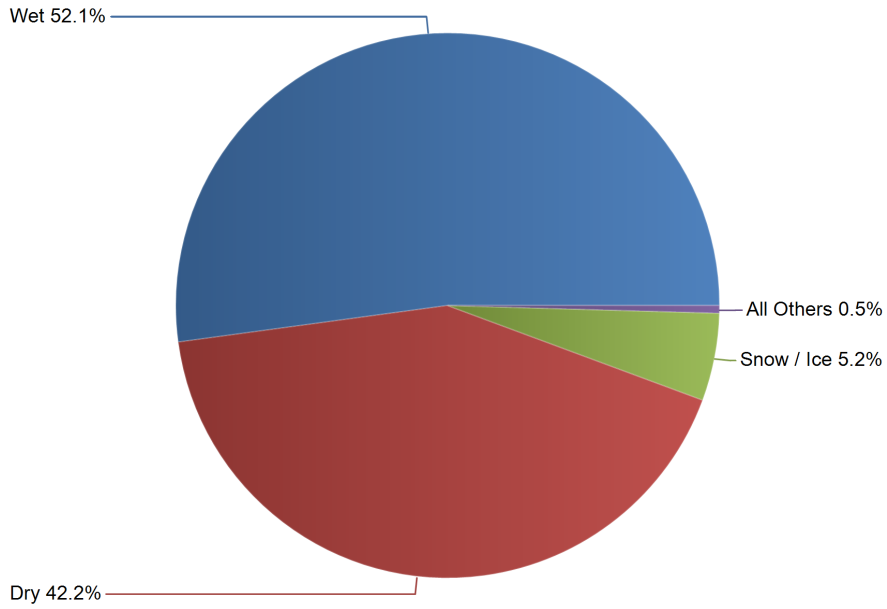
There was a clear correlation between the time of collisions and the typical peak hours of traffic during weekdays on the LINC and the RHVP. The time of collisions during weekend did not follow any particular pattern. This observation is consistent with other roadways in the City of Hamilton.

Collisions by Road Surface Condition

A review of collisions based on their road surface conditions clearly show an unusually high number of collisions during wet and snow/ice (non-dry) conditions on the RHVP. In fact the majority of collisions on the RHVP occurred on non-dry road surface condition. The City resurfaced the RHVP in the summer of 2019. The number of collisions during the non-dry conditions has significantly dropped in 2019 and 2020 following the resurfacing of the parkway. The number of collisions during non-dry conditions on the LINC are consistent with Provincial averages and did not reveal any unusual trends.

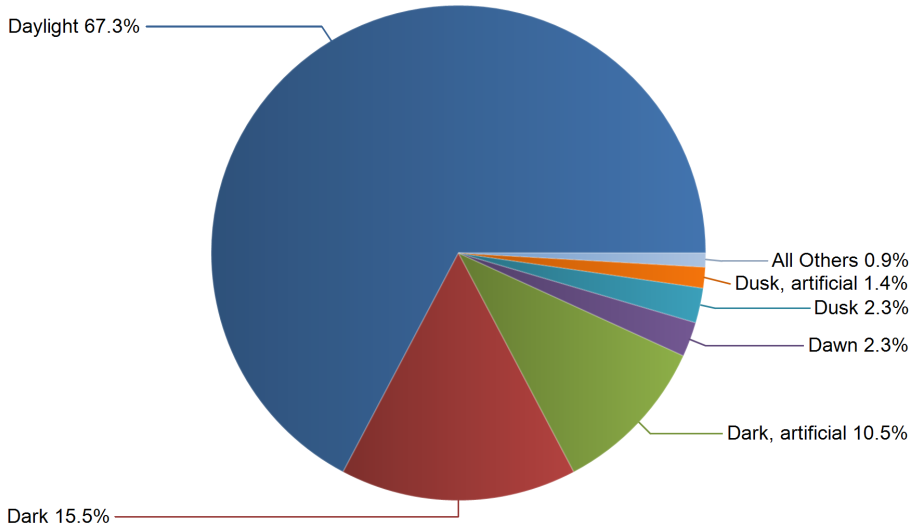


Collisions by Road Surface Condition, 5 Years - LINC (2016-2020)

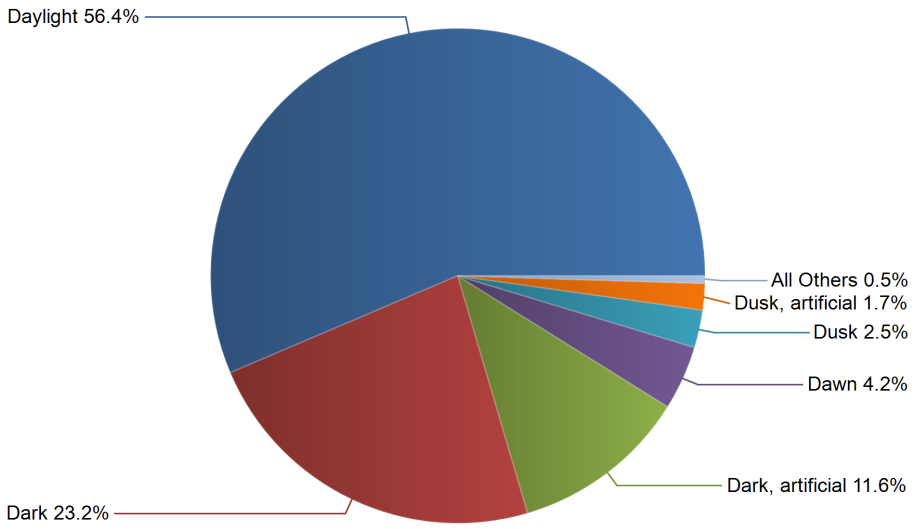


Collisions by Road Surface Condition, 5 Years - Red Hill Valley Parkway (2016-2020)

The percentage of collisions occurred during daylight conditions on the LINC is 67% which is similar to the rest of the City of Hamilton (64.7%). The collisions occurred on the RHVP during daylight condition constituted 56.4% of all collisions.



Collisions by Lighting Condition, 5 Years - LINC (2016-2020)



Collisions by Lighting Condition, 5 Years - Red Hill Valley Parkway (2016-2020)

Collisions by Impact Type

The prominent collision impact type on the LINC and the RHVP was rear end (70.1% and 47.8% respectively). The difference between the percentage of rear end type collisions on the LINC and the RHVP clearly shows the difference between operations of these two highways. The LINC experiences recurring congestion and the high percentage of rear end can be the result of the congestion. On the RHVP the single motor vehicle collisions constitute the second highest collision types.

Drivers

In 23% of all police reported collisions on the LINC at least one driver lost control from 2016-2020. On the RHVP, however, in 31% of all police reported collisions, at least one driver lost control.

On the LINC and RHVP, 41% and 31% of collisions respectively are speed related.

Hamilton

HAMILTON CYCLING COMMITTEE (HCyC) MINUTES

Wednesday, April 7, 2021
5:45 p.m.
Virtual Meeting

Present:	Chair:	Chris Ritsma
	Vice-Chair:	William Oates
	Members:	Sharon Gibbons, Yaejin Kim, Ann McKay, Jessica Merolli, Cora Muis, Gary Rogerson, Kevin Vander Meulen, and Christine Yachouh

Absent with Regrets: Jeff Axisa, Kate Berry, Joachim Brouwer, Roman Caruk, Jane Jamnik, Councillor Esther Pauls, Cathy Sutherland, and Councillor Terry Whitehead

Also Present: Trevor Jenkins, Project Manager, Sustainable Mobility
Peter Topalovic, Program Manager, Sustainable Mobility

(a) APPROVAL OF AGENDA

Staff advised of the following addition to the agenda:

7. DISCUSSION ITEMS

7.4 Update on Citizen Committee Report: Bill 148: Doored but Not Ignored Act, 2019

(Oates/Vander Meulen)
That the agenda of the April 7, 2021 meeting of the Hamilton Cycling Committee be approved, as amended.

CARRIED

(b) DECLARATIONS OF INTEREST

None

(c) APPROVAL OF MINUTES OF PREVIOUS MEETING

(i) March 3, 2021 (Item 3.1)

(McKay/Kim)
That the minutes of the March 3, 2021 meeting of the Hamilton Cycling Committee be approved, as presented.

CARRIED

(d) DISCUSSION ITEM (Item 8)

(Oates/Muis)
That the Project Updates from Staff be received:

(i) Gender and Cycling Study Update (Item 7.1)

Staff provided the Committee with an oral update on the Gender and Cycling Study provided by the consultant.

(ii) 2021 Work Plan Follow-Up (Item 7.2)

Staff advised Committee that their 2021 budget request was approved as part of the 2021 Budget approved by City Council. Members agreed to work to develop a formal workplan.

(iii) Planning and Project Updates (Item 7.3)

Staff provided the Committee with a written update on 2021 planned cycling infrastructure projects.

(iv) Update on Citizen Committee Report – Bill 148: Doored but Not Ignored (Item 7.4)

The report was approved by Public Works Committee on March 22 and by Council on March 31.

CARRIED

(e) MOTIONS

(i) Bicycle Lane Curbs (Item 8.1)

(Ritsma/Oates)

WHEREAS physical protection is the best practice to maintain cyclist safety;

WHEREAS vehicles regularly access bicycle infrastructure rendering the infrastructure unusable;

WHEREAS existing concrete curbs and flex posts are easily driven over by vehicles and crushed;

WHEREAS the goal for cycle tracks should be to be made for all ages and abilities; and,

WHEREAS grey concrete curbs are easily missed in summer or snow.

THEREFORE, BE IT RESOLVED:

(a) The Committee recommends pre-cast curb heights of no less than 25 cm tall be used to separate protected bike lanes from adjacent traffic lanes, where viable; and,

(b) That the City initiate a pilot program to test painting select larger pre-cast bike lane curbs with artwork from local artists or be marked brightly, so the curbs do not blend into the grey asphalt.

CARRIED

(f) Notice of Motion

(i) Bike Lane Asphalt (Item 8.2)

(Ritsma/Rogerson)

That the Bike Lane Asphalt motion be deferred to a future meeting.

CARRIED

(ii) Keddy Access Trail Artwork (Item 8.3)

(Ritsma/Oates)

That the Keddy Access Trail Artwork motion be deferred to a future meeting.

CARRIED

(g) ADJOURNMENT

(Merolli/Oates)
That, there being no further business, the meeting adjourned at 7:24 p.m.

Respectfully submitted,

Chris Ritsma
Chair, Hamilton Cycling Committee

Trevor Jenkins
Project Manager, Sustainable Mobility
Transportation Planning, Planning & Economic Development

Hamilton

HAMILTON CYCLING COMMITTEE (HCyC)
STAFF LIAISON REPORT

Wednesday, May 5, 2021
5:45 p.m.
Virtual Meeting

Present: Vice-Chair: William Oates
Members: Sharon Gibbons, Ann McKay, Cora Muis, Councillor Esther Pauls, Gary Rogerson, Cathy Sutherland, and Kevin Vander Meulen

Absent with Regrets: Jeff Axisa, Kate Berry, Joachim Brouwer, Roman Caruk, Jane Jamnik, Yaejin Kim, Jessica Merolli, Chris Ritsma, Councillor Terry Whitehead, and Christine Yachouh

Also Present: Trevor Jenkins, Project Manager, Sustainable Mobility
Peter Topalovic, Program Manager, Sustainable Mobility
Daryl Bender, Project Manager, Active Transportation
Mike Field, Manager, Transportation Operations

Pursuant to Section 5.4(4) of the City of Hamilton's Procedural By-law 21-021, as amended, at 6:15 p.m. the Staff Liaison advised those in attendance that quorum had not been achieved within 30 minutes after the time set for Hamilton Cycling Advisory Committee, therefore, the Staff Liaison noted the names of those in attendance and the meeting stood adjourned.

Respectfully submitted,

Trevor Jenkins
Project Manager, Sustainable Mobility
Transportation Planning, Planning & Economic Development

Hamilton

HAMILTON CYCLING COMMITTEE (HCyC) MINUTES

Wednesday, June 2, 2021
5:45 p.m.
Virtual Meeting

Present:
Chair: Chris Ritsma
Vice-Chair: William Oates
Members: Jeff Axisa, Roman Caruk, Sharon Gibbons, Ann McKay, Jessica Merolli, Cora Muis, Gary Rogerson, Kevin Vander Meulen, Cathy Sutherland, and Christine Yachouh.

Absent with Regrets: Kate Berry, Joachim Brouwer, Yaejin Kim, Jane Jamnik, Councillor Esther Pauls, and Councillor Terry Whitehead

Also Present: Trevor Jenkins, Project Manager, Sustainable Mobility
Peter Topalovic, Program Manager, Sustainable Mobility
Daryl Bender, Project Manager, Sustainable Mobility
Mike Field, Manager, Transportation Operations and Maintenance
Tyler Brown, Police Constable, Hamilton Police Services

(a) APPROVAL OF AGENDA

(Yachouh/Merolli)
That the agenda of the June 2, 2021 meeting of the Hamilton Cycling Committee be approved, as presented.

CARRIED

(b) DECLARATIONS OF INTEREST

None

(c) APPROVAL OF MINUTES OF PREVIOUS MEETING

(i) April 7, 2021 (Item 3.1)

(Oates/Merolli)
That the minutes of the April 7, 2021 meeting of the Hamilton Cycling Committee be approved, as presented.

CARRIED

(ii) May 5, 2021 (Item 3.2)

(Merolli/Oates)
That the minutes of the May 5, 2021 meeting of the Hamilton Cycling Committee be approved, as presented.

CARRIED

(d) Correspondence

(i) Correspondence from the Hamilton Police Services Board respecting the Feasibility of Launching Project529 (to reduce bike theft) in the City of Hamilton (Item 4.1)

(Sutherland/Oates)
That the correspondence from the Hamilton Police Services Board be received.

CARRIED

(e) STAFF PRESENTATIONS

(Caruk/Oates)
That the Staff Presentations be received:

(i) Hamilton Police Services Bike Registry (Item 8.1)

That the presentation given by Police Constable Tyler Brown respecting the new bike ownership and theft registry system, be received. More information on the program can be found on the Police Services' website.

(ii) Transportation Operation's Role in Cycling (Item 8.2)

That the presentation given by Mike Field, regarding Transportation Operations and Maintenance role in cycling, be received. The presentation will be circulated to members after the meeting.

(iii) King West Enhancements Feasibility Plan (Dundurn to Paradise) (Item 8.3)

That the presentation given by Peter Topalovic, regarding the planned enhancements to King Street (Dundurn to Paradise), be received. The work will take approximately two weeks and will primarily be done overnight. The existing bollards will need to be removed for a few days to allow the lines to be repainted, and will be replaced.

CARRIED

(f) DISCUSSION ITEM

(Gibbons/Axisa)
That the Project Updates from Staff be received:

(i) Planning and Project Updates (Item 9.1)

Staff provided the Committee with a written update on 2021 planned cycling infrastructure projects.

(ii) Wilson Street Construction Detour (Item 9.2)

Staff provided an oral update on the planned cycling detour during repaving of Wilson Street.

CARRIED

(g) MOTIONS

(i) Approval of All Advisory Committee Event Date and Selection of a Presenter (Item 11.1)

(Oates/Rogerson)
WHEREAS, the Lesbian, Gay, Bisexual, Transgender and Queer (LGBTQ) Advisory Committee recommended that an All Advisory Committee Event be hosted for the purpose of providing City Advisory Committees with an opportunity to introduce themselves to one another and educate each other in terms of their respective Committee's purpose (mandate) and goals;

WHEREAS, an All Advisory Committee Event was approved by Hamilton City Council on April 14, 2021 (see Item 4 of Audit, Finance and Administration Committee Report 21-005 for reference);

WHEREAS, at the All Advisory Committee Event, each Advisory Committee will be allotted 5 minutes to introduce their respective

Committee's purpose (mandate) and discuss the successes and the challenges the Advisory Committee has experienced; and,

WHEREAS, the staff liaisons for each Advisory Committee met and mutually agreed upon a tentative date for the All Advisory Committee Event.

THEREFORE, BE IT RESOLVED:

(a) That the proposed date of Monday, September 27, 2021, commencing at 4:00 p.m., for the All Advisory Committee Event be approved; and,

(b) That Christine Yachouh and Jessica Merolli be authorized to represent the Hamilton Cycling Advisory Committee at the All Advisory Committee Event and deliver a five-minute presentation on the Committee's behalf respecting the Committee's purpose (mandate), successes and challenges.

CARRIED

(ii) Support for the Hamilton Light Trail Transit (LRT)

(Yachouh/Oates)
WHEREAS, the B-Line LRT is part of a strong and connected active transportation network;

WHEREAS, LRT is aligned with Hamilton's Climate Change goals; and,

WHEREAS, cycling is a solution of a first/last mile connection option to transit.

THEREFORE, BE IT RESOLVED:

(a) That the Hamilton Cycling Advisory Committee support the Hamilton B-Line LRT project.

CARRIED

(h) NOTICE OF MOTION

(i) Approval of All Advisory Committee Event Date and Selection of a Presenter

That the Rules of Order be waived to allow for the introduction of the following Notice of Motions as Motions at this meeting respecting (1)

Approval of All Advisory Committee Event Date and Selection of a Presenter, and (2) Support for the Hamilton LRT.

CARRIED

For further disposition, refer to Item (f)(i) and (f)(ii).

(ii) Bike Lane Asphalt (Item 11.2)

WHEREAS road works, emergencies, development, construction, utilities and other events require removal of asphalt and/or concrete in bicycle lanes;

WHEREAS asphalt is typically patched quickly then properly repaired at a later date;

WHEREAS work requiring removal of asphalt and/or concrete can take months or years;

WHEREAS bicycles require a smoother surface, both for safety and quality of ride; and,

WHEREAS there are various examples of uncomfortable and unsafe patchwork on key pieces of cycling infrastructure.

THEREFORE, BE IT RESOLVED:

(a) That the Committee recommends all asphalt and/or concrete crossing the path of a bicycle lane, bicycle trail, bicycle route, or other bicycle infrastructure be repaired/patched immediately after work is complete. All asphalt and/or concrete for these locations be repaired to the same quality regardless of whether the entire project is complete or in progress. The quality of the repair should be to the same quality or better than the adjacent untouched asphalt and/or concrete; and,

(b) That the Committee recommends Public Works Committee take this motion and present it as direction to staff.

(i) General Information / Other Business

(i) Expectations for Committee Member Attendance

The Chair reviewed attendance expectations for Committee members, and discussed the process by which a Committee member may be removed. A member will be given an opportunity to provide an explanation to the Chair prior to any decision on removing them.

(j) ADJOURNMENT

(Axisa/Merolli)
That, there being no further business, the meeting adjourned at 7:53 p.m.

Respectfully submitted,

Chris Ritsma
Chair, Hamilton Cycling Committee

Trevor Jenkins
Project Manager, Sustainable Mobility
Transportation Planning, Planning & Economic Development

CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Engineering Services Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	August 11, 2021
SUBJECT/REPORT NO:	Proposed Permanent Closure and Sale of a Portion of Pinot Crescent, Stoney Creek (PW21043) (Ward 10)
WARD(S) AFFECTED:	Ward 10
PREPARED BY:	Cetina Farruggia (905) 546-2424 Ext. 5803
SUBMITTED BY: **SIGNATURE:**	Gord McGuire Director, Engineering Services Public Works Department 

RECOMMENDATION

(a) That the application of the owner of Block 9, plan 62M-1241 to permanently close and purchase a portion of road allowance abutting Block 9, ("Subject Lands"), as shown on Appendix "A" and Appendix "B", attached to Report PW21043, be approved, subject to the following conditions:

(i) That the City Solicitor be authorized and directed to prepare all necessary by-laws to permanently close and sell the highway, for enactment by Council;

(ii) The Real Estate Section of the Planning and Economic Development Department be authorized and directed to enter into any requisite easement agreements, right of way agreements, and/or other agreements deemed necessary to affect the orderly disposition of the Subject Lands and to proceed to sell the Subject Lands to the owners of Block 9, Plan 62M-1241, as described in Report PW21043, in accordance with the City of Hamilton Sale of Land Policy By-law 14-204;

(iii) The City Solicitor be authorized to complete the transfer of the Subject Lands to the owner of Block 9, Plan 62M-1241 pursuant to an Agreement of Purchase and Sale or Offer to Purchase as negotiated by the Real Estate Section of the Planning and Economic Development Department;

(iv) That the City Solicitor be authorized and directed to register a certified copy of the by-law(s) permanently closing and selling the highway in the proper land registry office;

(v) That the City Solicitor be authorized to amend and waive such terms as she considers reasonable to give effect to this authorization and direction;

(vi) That the Public Works Department publish any required notice of the City's intention to pass the by-laws and/or permanently sell the closed highway pursuant to the City of Hamilton Sale of Land Policy By-law 14-204;

(vii) That the applicant be fully responsible for the deposit of a reference plan in the proper land registry office, and that said plan be prepared by an Ontario Land Surveyor to the satisfaction of the Manager, Geomatics and Corridor Management Section, and that the applicant also deposit a reproducible copy of said plan with the Manager, Geomatics and Corridor Management Section.

EXECUTIVE SUMMARY

The owner of Block 9, Plan 62M-1241, has made an application to permanently close and purchase a portion of Pinot Crescent. The applicant proposes this closure to reacquire the Subject Lands as they were deemed to no longer be needed as part of the Pinot Crescent road allowance and facilitate land assembly for future development. As there were no objections from internal staff or public utilities, and the applicant is the only abutting land owner, staff are supportive of the closure and sale to the owner of Block 9, Plan 62M-1241.

Alternatives for Consideration – Not Applicable

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: The applicant has paid the Council approved user fee of $4,868.50. The Subject Lands will be sold to the owners of Block 9, Plan 62M-1241, at fair market value, as determined by the Real Estate Section of the Planning and Economic Development Department, in accordance with the City of Hamilton Sale of Land Policy By-law 14-204.

Staffing: An agreement to purchase the Subject Lands will be negotiated by the Real Estate Section of the Planning and Economic Development Department.

Legal: The City Solicitor will prepare all necessary by-laws to permanently close and sell the Subject Lands and will register such by-laws in the Land Registry Office once Council has approved the by-law. The by-law does not take effect

until the certified copy of the by-law is registered in the proper land registry office. The City Solicitor will complete the transfer of the Subject Lands to the owners of Block 9, Plan 62M-1241, pursuant to an agreement negotiated by the Real Estate Section of the Planning and Economic Development Department.

HISTORICAL BACKGROUND

The Subject Lands form a portion of Pinot Crescent which was dedicated to the City through Plan of Subdivision 62M-1241 in 2017. On April 26, 2021, the applicant made an application to close and reacquire a portion of Pinot Crescent as it was later deemed to no longer be needed as part of the Pinot Crescent road allowance. There were no objections received by any City Department, Division, or Public Utility. The applicant is the only abutting land owner. As such, staff are supportive of the closure and sale of the Subject Lands to the owner of Block 9, Plan 62M-1241.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

A by-law must be passed to permanently close the lands in accordance with the *Municipal Act, 2001.*

RELEVANT CONSULTATION

The following public utilities, City departments and divisions were provided with a copy of the application and were invited to provide comments:

- Planning and Economic Development Department: Development Engineering, Building, Economic Development, Real Estate, and Planning
- Public Works Department: Engineering Services, Hamilton Water, Transportation Operations and Maintenance, and Environmental Services
- Hamilton Emergency Services
- Corporate Services Department: Budgets and Finance
- Mayor and Ward Councillor
- Bell, Alectra Utilities, Hydro One, and Enbridge Gas

There were no objections received from any public utilities, City departments and divisions.

As the applicant is the only abutting land owner there was no External Circulation required for this application.

ANALYSIS AND RATIONALE FOR RECOMMENDATION

As there were no objections received by any City Department, Division, or Public Utility and the applicant is the only abutting land owner, staff are supportive of the closure and sale of the Subject Lands to the owner of Block 9, Plan 62M-1241.

ALTERNATIVES FOR CONSIDERATION

N/A

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

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 PW21043 - Aerial Drawing
Appendix “B” to Report PW21043 - Location Plan

Hamilton

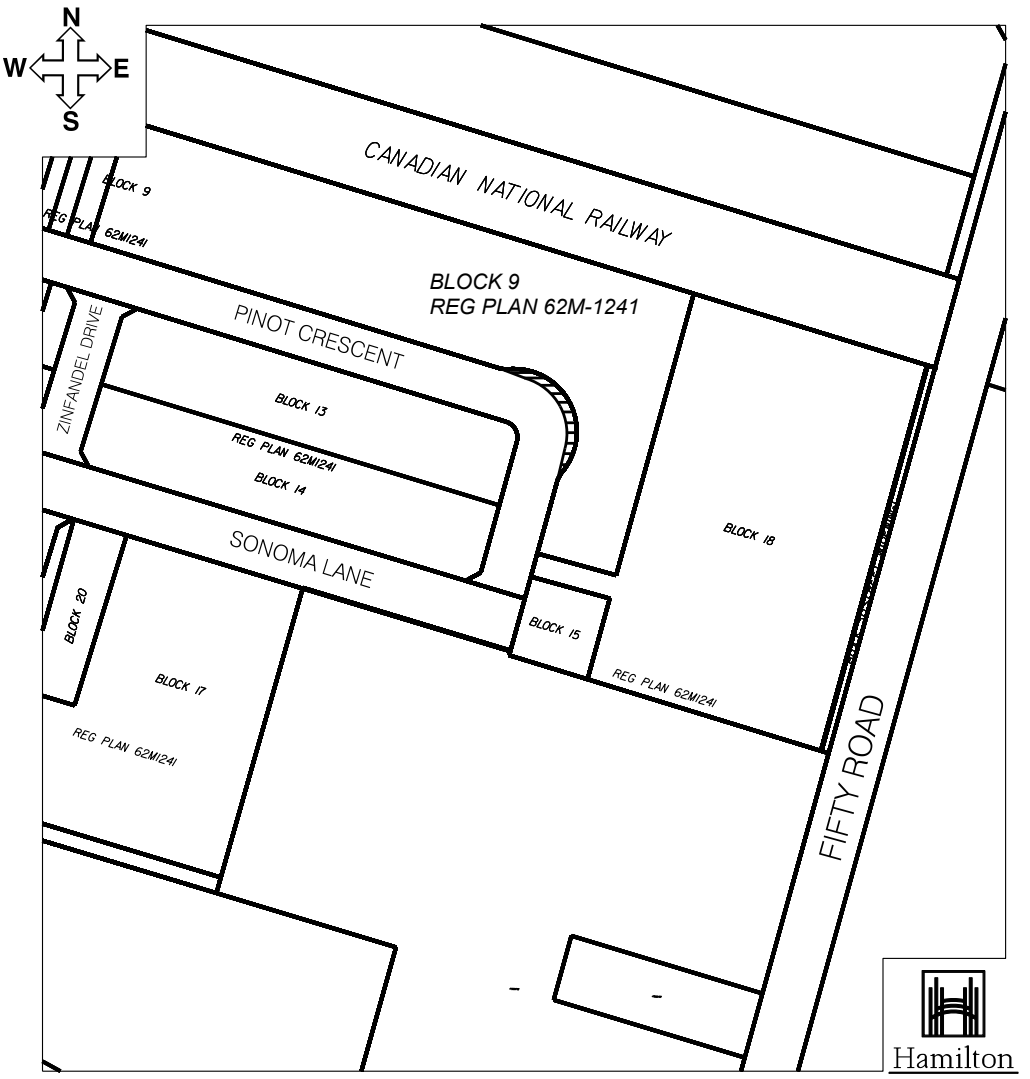
PROPOSED CLOSURE OF PORTION OF
PINOT CRESCENT, STONEY CREEK

Geomatics & Corridor Management Section
Public Works Department

LEGEND

Lands to be Closed

NTS | 04/05/2021 | Sketch by: CF



LOCATION PLAN

PROPOSED CLOSURE OF
PORTION OF

**PINOT CRESCENT,
STONEY CREEK**

CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT

LEGEND

SUBJECT LANDS

DATE: May 4, 2021 | Not to Scale | Sketch By: CF

REFERENCE FILE NO : PW21_

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

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	August 11, 2021
SUBJECT/REPORT NO:	Commercial E-Scooters Operations (PED20134(b)) (City Wide) (Outstanding Business List Item)
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 be directed to initiate a Request for Proposals to select a maximum of two commercial E-Scooter operators to operate a 24-month pilot program within the City of Hamilton, with two optional one-year extensions based on the general scope and terms set out herein this Report PED20134(b) and pending staff review of the pilot program;

(b) That the General Manager of Planning and Economic Development be authorized to negotiate, enter into, and execute an agreement, any amendments, and ancillary documents required to give effect thereto with the successful proponents to the request for proposals for Commercial E-Scooter operators in a form satisfactory to the City Solicitor; based on the general scope and terms outlined in this Report PED20134(b);

(c) That, upon the award of any agreements with a Commercial E-Scooter operator, the General Manager of Planning and Economic Development be authorized to amend the operating agreement with Hamilton Bike Share Inc. (HBSI) for the operation of the base bike share program to provide an operating offset equivalent to the annual vehicle fee, device equity fee, winter operations offset fee and per trip fee collected from the Commercial E-Scooter operator; and,

(d) That Items 21B, 21C and ABN, respecting Advisory Committee for Persons with Disabilities Report 20-007 (Items 5 and 7) and the Regulation of E-Scooters, be identified as completed and removed from the Public Works Outstanding Business List.

EXECUTIVE SUMMARY

On November 25, 2020, Council approved Report PED20109(c) Public Bike Share Program Phased Procurement Process which established an operating agreement through to December 2022 for the operation of the existing base bike share program through Hamilton Bike Share Inc. (HBSI), as well as, a phased procurement process for introducing a broader suite of micro-mobility options in the City, potentially including electric kick style scooters (E-Scooters). This Report addresses that second phase of the procurement process, specifically the establishment of commercial E-Scooter operations.

Staff presented Report PED20134(a) to Public Works Committee on May 3, 2021, recommending the initiation of an RFP process for a commercial e-scooter operator. Committee referred the report back to staff to undertake further engagement and receive input from specific stakeholder groups including the Advisory Committee for Persons with Disabilities (ACPD) and the Seniors Advisory Committee. Report PED20134(b) presents a revised recommended approach to a commercial E-Scooter operation as a result of the feedback received through this additional engagement.

Council approved the use of personal E-Scooters in the City, and the by-laws and regulations that would apply to the personal use of E-Scooters, on December 16, 2020, through Report PED20134/PW20050. This occurred in response to the Province of Ontario's five-year pilot program which permits E-Scooters on municipal roads throughout the Province, if a municipality passes a by-law to "opt-in". The five-year pilot launched January 1, 2020, under *Ontario Regulation 389/19* made under the *Highway Traffic Act,* R.S.O. 1990, c. H.8 (*HTA*) with the goal of evaluating the use of E-Scooters by evaluating their ability to safely integrate with other vehicle types and determine whether they should be permanently allowed on roads in Ontario.

On December 16, 2020, Council also approved amendments to By-law 01-215 being a by-law to Regulate Traffic (City of Hamilton Traffic By-law) and to By-law 01-219, being a By-law to Manage and Regulate Municipal Parks (City of Hamilton Parks By-law) to permit E-Scooters on roads, bike lanes and designated pathways, as part of a phased approach. By-law 20-270 was also passed by Council on December 16, 2020 to regulate commercial E-Scooters and make it clear that commercial operators must have City approval before they can operate in the City of Hamilton.

This Report addresses the next phase of the micro-mobility program, which is to permit commercial E-Scooter operations in the City of Hamilton as a 24-month pilot program, with potential for two one-year extensions, at the discretion of the City. Staff is recommending a competitive Request for Proposal (RFP) process to allow commercial E-Scooter operators to submit their business plans to the City and compete for the ability to operate commercial E-Scooters in Hamilton. The successful applicants will then sign a formal agreement with the City. It is recommended that a maximum of two contracts be awarded to qualified E-Scooter system operators, who will be selected through the RFP process. Each operator will be allowed to operate a maximum of 350 E-Scooters in the current bike share service area. However, if the operator wishes to extend their service area beyond the minimum, they will be able to provide additional E-Scooters in the ratio of 150 devices per ten square kilometres to a maximum of 900 E-Scooters (per operator). The operator will have to demonstrate that there is coverage in the service areas they choose to operate in and have strategies to reduce clumping of vehicles. The RFP and subsequent agreement will establish the parameters for commercial operators as well as establish the fees that will be paid to the City in relation to the program.

This Report provides an overview of the recommended commercial E-Scooter pilot framework as well as the terms for the recommended RFP process, including how proponents will operate their vehicles, what support systems they will be required to provide, how they will comply with City regulations and by-laws, and the associated fees related to operating in Hamilton.

The proposed operating framework outlined in this Report identifies key aspects of the program including length of the pilot, permitted operating speeds, operating areas, requirements for locking of devices, parking management, and allowable devices.

This Report also outlines key aspects of the RFP process. Both the overall operating framework and RFP elements were developed taking into account experience in other jurisdictions such as Ottawa, ON, Calgary, AB, Kelowna, BC, Seattle, WA, and San Francisco, CA where programs are already in place. Additionally, the framework incorporates concerns and communications that have been submitted by various stakeholders in Hamilton, notably the Advisory Committee for Persons with Disabilities (ACPD).

Successful E-Scooter system operators will be awarded contracts to operate in the City and pay fees to the City to cover the costs of application processing, bike parking improvements, device equity and enforcement as well as operations fees to offset impacts to the existing public bike share system.

Alternatives for Consideration – See Page 16

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: There are no financial impacts on the City. All capital and operating costs will be the responsibility of the commercial operator. All City costs for administration of the program and enforcement costs will be recovered through the program fees as well as fine revenues.

Successful E-Scooter operations applicants who are awarded contracts will be charged fees to cover application processing, bike parking improvements, enforcement and vehicle operations fees to offset impacts to the existing public bike share system. This is projected to make the E-Scooter program revenue neutral and is in line with North American municipal E-Scooter systems best practices.

The minimum required fees include:

1) **$5,000** Annual Administration Fee;
2) **$8** Annual Program Improvement Fee per E-Scooter;
3) **$45** Annual Vehicle Fee per E-Scooter;
4) **$15** Annual Device Equity Fee per E-scooter;
5) **$10,000** Annual Winter Operations offset fee; and,
6) **$0.05** per trip for all E-Scooters.

Successful proponents will be required to provide a $15,000 revolving security deposit. The City can recover costs associated with enforcement should the commercial operator not address concerns in the adequate timeframe (e.g. removing and storing improperly parked E-Scooters). The proponent will be required to replenish the security deposit should it fall under $5,000. This security deposit will be utilized on a “fee for service” basis where required (e.g. removal of improperly parked devices).

Report PED20109(c) indicated that a portion of revenues from the procurement outlined in this Report would be allocated to offset the operating impact on the base bike share program, in recognition of the impact that new micro-mobility services will have on the operation of the bike share program. Therefore, staff are recommending that the annual vehicle fees and per trip fees be allocated as an operating offset to the current bike share operator. The Device Equity Fee will also be paid to the bikeshare operator but must be used to invest in capital and operating improvements to the Everyone Rides Initiative (ERI) Adaptative Bike

Share Program. The Administration Fee and Program Improvement Fee would be allocated for the City's administration costs.

The Winter Operations Fees will be collected but returned to the operator if they have demonstrated winter operations experience and operate 50% of their fleet in winter between November and March of the pilot period. If the E-Scooter operator does not have winter operating experience and does not operate in winter then these fees will be payable to the bike share operator, who does operate over winter and can accommodate E-Scooter users during the winter months.

Staffing: There are no staffing impacts associated with adopting the staff recommendation. Existing Transportation Planning Staff in the Sustainable Mobility Group will provide oversight of the successful E-Scooter operators, as they do with the current bike share system.

Enforcement of the approved Traffic-By-law will be by Hamilton Police Services and enforcement of operations within Parks will be overseen by the Licensing and By-law Services Division. Enforcement activities include:

- Management of the right-of-way and ensuring no obstruction of pedestrian areas;
- Vehicle safety compliance;
- Vehicles contained in the proper operating and parking areas;
- Vehicles removed from any paths or parks where they are not permitted; and,
- Improper riding behaviour.

Transportation Planning staff will handle public complaints and the operators will be asked to promptly resolve issues identified in the right-of-way. If they do not do so, then Municipal Licensing and By-law Services will be called in, and their costs for enforcement will be covered by the security deposit.

Legal: Legal Services will work with successful E-Scooter system operators to enter into operations contracts with the City, following the RFP process.

HISTORICAL BACKGROUND

E-Scooters have emerged as a new mode of transportation with an electric motor and the ability to be imminently shareable through app-based technology. Shared commercially operated E-Scooters have been launched in more than 125 cities across

the United States and are quickly launching in the Canadian market. Ontario joins Alberta and Quebec amongst the growing number of Canadian Provinces allowing E-Scooters on the roadway.
On December 16, 2020, Council approved the operation of E-Scooters in Hamilton by amending certain City by-laws (PED20134/PW20050) outlined in Public Works Committee Minutes 20-12, Item 9.2; in response to the Province's five-year pilot program which permits E-Scooters on municipal roads throughout the Province, if a municipality passes a by-law to "opt-in". The five-year pilot launched January 1, 2020, under *Ontario Regulation 389/19* made under the *Highway Traffic Act,* R.S.O. 1990, c. H.8 (*HTA*) with the goal of evaluating the use of E-Scooters, specifically their ability to safely integrate with other vehicle types and determine whether existing rules of the road are adequate.

Currently, personal E-Scooters, are allowed, to operate on roads, bike lanes, multi-use paths in the road right-of-way, and designated pathways in parks. They are not permitted to operate on any pedestrian right-of-way or in most parks and park pathways. If Council approves the use of commercial E-Scooters in Hamilton, the same rules would also apply.

Staff presented Report PED20134(a) to Public Works Committee on May 3, 2021, recommending the initiation of an RFP process for a commercial E-Scooter operator. Committee referred the report back to staff to undertake further engagement and receive input from specific stakeholder groups including the Advisory Committee for Persons with Disabilities (ACPD) and the Seniors Advisory Committee.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

The operating framework outlined in this Report complies with the Provincial pilot regulation, *Ontario Regulation 389/19*: Pilot Project - Electric Kick-Scooters, that came into effect January 1, 2020. The pilot is intended to evaluate the use of E-Scooters over a five-year period to examine their ability to safely integrate with other vehicle types and determine whether existing rules of the road are adequate.

The RFP to secure Micro-mobility Service Providers for the E-Scooter program will be issued and awarded in accordance with By-Law 20-007, the City's Procurement Policy.

RELEVANT CONSULTATION

This Report was prepared in consultation with staff from Transportation Planning, Licencing and By-law Services, Environmental Services Division, and Transportation Operations and Maintenance Division, working closely with Legal Services and Procurement.

Staff from Hamilton Municipal Parking, and Hamilton Police Services were consulted with respect to operations and enforcement matters.

The Hamilton Cycling Advisory Committee, Cycle Hamilton, and the Canadian National Institute for the Blind (CNIB) have provided input through meetings and/or correspondence.

Correspondence from the ACPD and their feedback was received by Council on February 10, 2021, General Issues Committee Report 21-003 Item 9.1. Additional correspondence from the ACPD Committee was received at the May 3, 2021 Public Works Committee (Report 21-006, item 9.1) and at the ACPD Committee meeting on May 11, 2021. Recommendations from the ACPD have been considered in the development of the Commercial E-Scooter RFP process. Specifically, the RFP will require operators to:

- Include specialized equipment or techniques that alert pedestrians to the presence of an E-Scooter and ensure that the E-Scooter is perceptible to persons with sight impairments;
- Commence operations under a 24-month pilot program to allow for monitoring of impacts and benefits;
- Include provisions for operators to train users on safe operation;
- Include additional safety training on where users are permitted to ride an E-Scooter and where they cannot not ride them; and,
- Include highly visible contact information on the E-Scooters including the identifying vehicle number, a complaint phone number, and a complaint website.

It is also noted that the industry is moving towards a more formal regime which will address licencing, and insurance requirements as advocated for by the ACPD; however, these matters are generally regulated by the Province of Ontario. Staff will also work with the Hamilton Police Service, and By-law Services, on specialized enforcement of the E-Scooters.

Staff also presented to the Seniors Advisory Committee on May 7, 2021 to gather the Committee's insight and comments on the Commercial E-Scooter Program. Comments provided by this Committee largely pertained to how the operations would work, viability of winter operations, and connections to lower density residential areas.

A focus group of the Mobility Lab, a collective of transportation groups in the City, was held to get additional feedback on the program.

ANALYSIS AND RATIONALE FOR RECOMMENDATION

Commercial E-Scooter Operating Framework

The five-year provincial pilot launched January 1, 2020, under *Ontario Regulation 389/19* made under the *Highway Traffic Act*, R.S.O. 1990, c. H.8 (*HTA*) includes specific regulations for E-Scooters, including vehicle and safety requirements, and operator and safety requirements. However, the regulation assumes that municipalities may add additional regulations with respect to parking, operating parameters (e.g. operating area), liability, fees, and fines for non-compliance.

The report PED20134/PW20050 approved by Public Works Committee on December 7, 2020 (Item 9.2) already permits citizens to operate their personally owned E-Scooters in the City right-of-way and some pathways in the City as signed. Proper use and behaviour is regulated through By-law 01-215, a By-law to Regulate Traffic, and By-law 01-219, a By-law To Manage and Regulate Municipal Parks with penalties administered through By-law 17-225, being a By-law to Establish a System of Administrative Penalties.

This Report sets out the operating framework specifically for Commercial E-Scooter operations, building upon the previous report and by-law. All by-laws and fines for private E-Scooters will also apply to commercial operations as they do to individual citizens.

In developing the framework for Commercial E-Scooter operations, staff took into account practices in other jurisdictions, emerging new practices that address some previous concerns with E-Scooters, and recent input received from stakeholders since Report PED20134/PW20050 was approved by Public Works Committee and Council.

Key aspects of the proposed Hamilton commercial E-Scooter pilot framework include:

- **Length of Agreement:** The term of the agreement will be for 24-months with the option for two one-year extensions at the discretion of the City. The City reserves the right to terminate the agreement should the commercial operator breach the agreement for any reason, with proper notification;
- **Number of Scooters:** Staff is recommending a maximum of two operators be selected, with each operator managing a fleet of no less than 150 scooters and no more than 350 scooters in the existing bike share service area. However, if the operator wishes to extend their service area beyond the minimum, they will be able to provide additional E-Scooters in the ratio of 15 devices per one square kilometer to a maximum of 900 E-Scooters per operator and the operator may choose how many square kilometers they wish to operate in;
- **Operating Speed:** Commercial E-Scooters will be limited to a maximum speed of 20 km/h (comparable to a beginner cyclist) and will be “geo-fenced” to reduce speed

to 10 km/h when operating in identified parks, high-pedestrian areas, and paths (comparable to walking speed);

- **Operating Areas:** E-Scooters will be permitted to operate on roads, bike lanes, and designated pathways and trails. E-Scooters will not be permitted to operate on sidewalks. Stickers will be required on every E-Scooter saying, "No Sidewalk Riding" and an app message will remind users of this when starting their trip;
- **Lock-Up E-Scooters:** All commercial E-Scooters will be required to have a "locking" mechanism and will be required to be fastened to a rack or pole, similar to the existing bikeshare system. This aims to address the issues experienced in other jurisdictions where E-Scooters could be left anywhere;
- **Parking Management and Enforcement:** Commercial operators will be required to educate users on proper parking procedures, such as not blocking the sidewalk clearway path of travel, obstructing features such as utility accesses, garbage bins, or doorways, or curbside zones reserved for uses such as buses, taxis or loading. The City and members of the public will be able to report improperly parked E-Scooters, which the operator will be required to address within a defined time period. Should the operator not meet the time period, the City has the option to address the issue and recover the cost through a security deposit;
- **Scooter Style:** All E-Scooters will be kick-style, meaning that they will not have a seat or pedal, and riders will need to stand while using them. To adhere to the Government of Ontario's E-Scooter pilot framework, there can only be one rider at a time, no cargo can be carried, baskets are not allowed, it must have two wheels and brakes, must have a horn or bell, as well as, front and rear lights;
- **Scooter Complaint Hotline:** Include highly visible contact information on the E-Scooters including a unique identifying vehicle number, a call-in complaint phone number, and a complaint website;
- **Scooter Platform Visual Alert:** E-Scooters will be required to have a high-contrast treatment on the handle bars and the deck (the part on which riders stand) that helps to visually alert individuals with low vision of potential obstructions in their path;
- **Acoustic Vehicle Alerting System:** Operators will be required to include specialized equipment or techniques that create a sound automatically to alert pedestrians of the presence of an E-Scooter on a sidewalk or pathway. This alert system is in addition to the provision of a bell, which is a legal requirement for operators; and,
- **Winter Operations Offset Fee:** If the operator has no winter experience, then this fee will be collected to offset the fact that the mobility service will not be available for a portion of the year. Operators that do not have winter operations experience will not be permitted to operate in the winter and will not receive a refund on this fee.

Implications of E-Scooters and Commercial Operations

E-Scooters are increasingly being promoted as a means for improving mobility within a community because of their convenience for short trips and low space requirements. E-Scooters assist with the first-mile or last-mile commute and can support connections to transit. Since they are powered by electricity, they also have environmental benefits including reduced air emissions.

Commercial E-Scooter operations present challenges because the vehicles are generally stored in the City's right-of-way and managed by third-party operators. These challenges include parking compliance, illegal sidewalk riding and safety, both for the user and for pedestrians. The number of E-Scooter operators and the number of devices they operate, influence the degree of impact to the management of the right-of-way. In order to minimize this impact, the number of E-Scooter operators and devices are limited. Furthermore, safety technologies, locking mechanisms, safety procedures, and training requirements are standard practice. As a result of their low cost and ability to be rented out by a simple mobile device application, large numbers of E-Scooters can potentially be deployed where commercial operators exist.

Request for Proposal Process

Various approaches were considered for introducing commercial E-Scooter operators ranging from a simple application process to a more formalized licencing regime similar to what is used for taxis or Personal Transportation Providers (PTPs). However, based on experience in other jurisdictions, and taking into account the City of Hamilton's Procurement Policy, it was determined that an RFP approach would be most appropriate.

The RFP process will ensure that the City is able to launch an E-Scooter micro-mobility system that is right sized for the City and mitigates the impacts to the City's bike share system.

The RFP will require proponents to provide the details of their operations, compliance, communication and monitoring plans, and these will be evaluated as part of the RFP process. This includes the following areas:

- **Fleet Operations and Maintenance Plan**: Includes information on how the vehicles will be operated and maintained; how they will be deployed and how the geofencing will be used; how vehicles will be balanced, charged and repaired, and other key operating elements;
- **Staffing Plan**: Will outline how staffing will be maintained to operate the system and what types of hiring practices will be employed;

- **Geographic Area**: Will outline the intended geographic area within the City that the operator will service. This area must include the minimum service area, which will be the existing bike share service area, but may be extended further, as proposed by the RFP proponent;
- **Data Management, Sharing and Reporting**: Will outline how the proponent will provide the key information requested by the City and what additional information they will provide; how they will convey that information to the City, and how that data is to be shared with partners who will perform analysis on the data including McMaster University;
- **Low Greenhouse Gas Emissions Plan**: Outlines business practices to ensure that the operations of the system result in low greenhouse gas emissions;
- **Website, Smartphone Application and Open Application Interface Plan:** Will outline what information will be conveyed to the user on-line, how they will be able to access the system and rent an E-Scooter, and how the application will be open so that third-party applications can allow users to access the systems in convenient ways;
- **Fleet Size and Operating Area Plan**: The operator will determine their fleet between 150 and 900 vehicles and indicate where these vehicles will operate within, and if applicable, beyond the minimum required service area. They will also provide a plan for how vehicles will be balanced and maintained within their geography;
- **Communication and Education Requirements:** Will outline how the proponent will promote safe use of the vehicles and how they will ensure users understand that the right-of-way needs to be managed and E-Scooters properly parked. This may include videos, campaigns, and signage;
- **Vehicle Parking Plan and Right-of-Way Safety Plan**: Will outline how proponents will attend to mis-parked E-Scooters, and the tools and strategies that will be used to ensure right-of-way safety;
- **Vehicle and Equipment Safety Requirements**: The operator will provide technical details on their equipment and how safety of the rider and those using the right-of-way are maintained;
- **Insurance and Liability**: Outlines that the proponent has the required insurance and liability documentation and policies in place;
- **Compliance, Security and Enforcement Plan:** Describes how the proponent will ensure compliance with all City by-laws and uphold any E-Scooter prohibitions that have been set by the City;
- **Fleet Expansion**: The City reserves the right to allow operators to add additional E-Scooters to allow for expansion of the service area;
- **Additional Infrastructure and Education Support:** Proponents will be encouraged to provide plans and resources for enhanced signage at key E-Scooter parking areas, support for enhanced education programs, support for the ERI

Program (the Bike Share Equity Program operated by HBSI) and support for additional bike parking infrastructure to be installed by the City;

- **Adaptive Vehicles:** The current kick-style E-Scooters that are permitted as part of the Provincial pilot program are for able bodied persons, and in order to offset an increase in vehicles of one type in the right of way, it is important to invest in adaptive vehicles through the ERI in the form of a $15 per vehicle adaptive bike share improvement fee that will help increase options for those who cannot ride an E-Scooter;
- **E-Scooter Subsidy Program:** Each operator will be required to provide subsidized passes for accessing the E-Scooters and non-smartphone access options; and,
- **Program Assessment:** Operators will be required to share anonymous trip-related data with the City of Hamilton during the pilot, monthly. This will include the number of vehicles, the number of vehicle trips, the number of active members, average trip duration, average trip length, the average length of time between uses, and other information to aid in assessing the success of the program and future expansion opportunities. Staff will work report back to Committee before the end of the pilot program.

The RFP and the operating contract that successful proponents will execute will help ensure that operations are in line with North American best practices and ensure that equity in the right-of-way is preserved so that pedestrian travel is not compromised at any time during E-Scooter program operations.

Any E-Scooter micro-mobility system operator will be eligible to apply to the RFP process. Applications will be evaluated as part of the RFP process based on the above-mentioned criteria. Only those applications that qualify and pass the evaluation will be permitted to operate in the City. If more than two operators pass, the operators with the top two highest evaluation scores will be permitted to operate and all others will not be awarded permits.

Operating Considerations for Commercial Operations

The RFP process and all necessary contracts and agreements will take into account the following considerations:

- Sidewalk and Pathway Operations Considerations

The regulations and by-laws approved on December 16, 2020 (PED20134/PW20050) outlined in Public Works Committee Minutes 20-12, Item 9.2; and By-law Number 20-270, take the general approach that E-Scooters will be treated similar to bicycles in that they are permitted to operate within the road right-of-way as a vehicle and not be permitted to operate on sidewalks. This is in part, due to the fact, that E-Scooters operate with similar speeds to bicycles but also takes into account that many sidewalks

in Hamilton's older areas are often narrow and do not have generous furniture zones, and the operation of E-Scooters on sidewalks could compromise the pedestrian environment.

It is proposed, however, that E-Scooters be allowed to operate on selected pathways through parks. This would be a permissive approach, whereby, E-Scooters would not be allowed to operate in parks, unless in a designated area where City signs are posted. The focus would be on allowing their use on pathways that provide key community connections, are sufficiently wide, and are routinely maintained. Pathways, where E-Scooters are allowed, will be signed as such, keeping in mind the need to restrict access to private connections.

Commercial E-Scooter vehicles can have speed restrictions through areas such as parks using geo-fencing technology, this practice is employed in many North American municipalities. This ensures technology-based enforcement and compliance for commercially operated E-Scooters in areas where they are not permitted.

Commercial E-Scooter operators will also need to ensure that their vehicles have safety precautions that limit the rider's ability to ride in areas they are not permitted, including sidewalks and park pathways that are not on the approved list. This can be achieved through geo-fencing and speed limiting technologies, as well as the required acoustic vehicle alerting systems and techniques. The RFP process will ask for the operators' detailed mitigation plans for sidewalk and pathway safety. The RFP will also seek proof from potential operators that the operators are trained, licensed, and insured, to contribute positively to the safety of the right-of-way, and protection of pathways for unimpeded pedestrian use.

Any failure of successful proponents to the RFP to ensure unimpeded access to pedestrian right-of-way will risk a termination of their contract to operate their E-Scooter service.

- Right-of-Way Storage Considerations

Since commercial E-Scooters will be stored primarily in the "furniture zone" of the right-of-way, it is important to minimize their encroachment onto any pedestrian areas. Many jurisdictions in North America, including Chicago, IL are now requiring commercial E-Scooters to have locking mechanisms that allow them to be fastened to bike racks and poles in the furniture zone. The RFP process includes this "lock-to" requirement and requires that operators contribute to the improvement to bike parking in the right-of-way to ensure that there are ample parking locations.

In addition to this, operators will be required to remove any E-Scooters that are encroaching on pedestrian spaces, that are improperly parked, or E-Scooters that are

not fastened to a bike rack or pole. In order to reinforce good usage practices, operators will be required to have education programs to ensure users know how to use the equipment and properly lock it up and have audible warnings when they are in use.

- Compliance and Enforcement

As with any new mode, enforcement will be a key consideration. Similar to bicycles, the enforcement of traffic by-laws will be carried out by Hamilton Police Services, and operations within Parks will be enforced by Licencing and By-Law Services. Enforcement requirements for personal E-Scooters are expected to be fairly modest but depend on uptake.

In terms of commercial operations, the RFP and contract address compliance requirements for commercial E-Scooter vehicles including: furniture zone parking; locking mechanisms; technology-based and geographic information services-based monitoring and enforcement; areas of operation; allowable fleet sizes; data sharing; insurance requirements; user education; communications; and fees. Staff in Transportation Planning (TP) will manage the contracts and ensure compliance and will deal with complaints about E-Scooters. Enforcement needs associated with commercial operations such as parking of E-Scooters and removal of abandon or improperly parked devices, will be built into operations agreements. TP Staff will manage the contracts, ensure compliance, and handle complaints about E-Scooters that are improperly parked or damaged. If E-Scooter companies do not properly tend to their equipment upon City request, then By-law Staff will be notified to levy any necessary costs through the security deposit.

Impact on the Existing Bike Share Program

A commercial E-Scooter program will enable the City to gain the most benefit from the use of E-Scooters as part of the City's overall micro-mobility strategy and the support of first-last mile connections to transit. However, the City must also balance these benefits with the potential impacts to the existing public bike share program.

The City-owned public bike share operations could be negatively impacted with the introduction of commercial E-Scooter operations. The data in North America on impacts is inconclusive and highly dependent on the existing conditions, ridership and municipal support for the existing bike share system operations. When E-Scooter programs are introduced in cities with stable, municipally funded, and supported bike share programs, there are usually initial impacts to bike share ridership which generally stabilize over time.

In recognition of this potential impact, Report PED20109(c) indicated that a portion of revenues from commercial E-Scooter operations would be allocated to offset the

operating impact on the base bike share program. Staff are recommending that the vehicle and trip fees collected from E-Scooter operators will be used to offset operating impacts to the bike share program. Staff are also recommending that a Device Equity Fee be collected to invest in capital and operations of an adaptive vehicle fleet operated by the ERI. This fee recognizes that the E-Scooters permitted under the Provincial pilot regulations can predominantly only be used by able-bodied individuals, and an investment in other types of vehicles is necessary to provide more options to more residents.

Constant monitoring of ridership and revenues for the E-Scooter program and the bike share program will take place during the 24-month pilot to better understand the impacts and develop contingency plans to ensure sustainable operations.

Potential Issues Raised by the Community and Mitigation Plan

The issues presented to the General Issues Committee and Public Works Committee from the ACPD, including the May 11, 2021 and previous meetings, and the CNIB are well documented and have inspired changes to this Report and the recommended strategy for introducing commercial E-Scooter operations. Similarly, input from the Seniors Advisory Committee, Cycling Advisory Committee, and community groups were taken into account. This section summarizes some key issues raised and proposed mitigation strategies.

Issue Raised	**Mitigation Strategy**
Improper E-scooter parking - how can individuals report issues (e.g. improper parking); how improper parking can be mitigated	Operators need to have clear contact information on their vehicles. E-scooters will be required to conform to “lock to” parking approach whereby devices must be locked to approved municipal infrastructure.
Convenience and functionality – E-Scooters may not be suitable for inclement weather; battery power may be limited; do not have a basket to store items.	Operators must bring the newest version of their vehicles to Hamilton, which have better safety features and battery life. Baskets are not permitted under the Provincial regulations, at this time.
Operations and operating model – private operators have no incentive to operate over the long term and can decide to leave the City abruptly, similar to the	The City is charging fees to operate E-Scooter programs and is offsetting bike share operations with a portion of those fees. However, the best micro-mobility programs are those with long term public

Issue Raised	Mitigation Strategy
departure of the former Bike Share Operator in May 2020. The E-Scooter program could have substantial impacts to the bike share program.	private partnerships and not permit-based models.
Operational issues – challenges to winter operations, ease of sidewalk riding, potential for sidewalk clutter, may clutter bike share stations, e-bikes have all the convenience of E-Scooters, but with the benefit of being a bike.	A winter operations offset fee is being collected, in the event that the operator cannot operate in Winter; sidewalk clutter is being addressed by requiring lock-to scooters and revolving line of credit to recoup enforcement costs; bike share stations will be monitored during the pilot and e-bikes are being explored in subsequent reports.
Safety and enforcement – concerns regarding pedestrian and E-Scooter conflicts and enforcing helmet usage for user 16 or 17 of age.	This Report has incorporated best practice mitigation strategies for safety and enforcement.
Equity – the E-Scooters permitted through the Provincial pilot can predominantly only be used by able-bodied people; is a smartphone the only way to access the E-Scooters.	A device equity fee will be collected to invest in adaptive bike share; operators will be required to have subsidy programs; however, non-smartphone access may be a challenge during the pilot but may be feasible if a program is made permanent.
Parking Capacity – Existing bike parking cannot accommodate the influx of vehicles; accommodating E-Scooters can take away from investments in cycling and bike share, which still requires more investment.	The City plans to install more bike parking to provide sufficient parking for bikes and E-Scooters; the E-Scooter program will complement the cycling program and will support the continued investment in cycling infrastructure and bike share.

ALTERNATIVES FOR CONSIDERATION

Council can decide not to seek a pilot commercial E-Scooter operator. Private individuals would continue to be allowed to operate personal E-Scooters in accordance with City by-laws.

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.

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

APPENDICES AND SCHEDULES ATTACHED

N/A

PT:cr

Hamilton

CITIZEN COMMITTEE REPORT

To:	Public Works Committee
From:	Hamilton Cycling Advisory Committee Chris Ritsma, Chair
Date:	August 11, 2021
Re:	Protected Bike Lane Curbs

Recommendation

(a) The Committee recommends pre-cast curb heights of no less than 25 cm tall be used to separate protected bike lanes from adjacent traffic lanes, where viable; and,

(b) That the City initiate a pilot program to test painting select larger pre-cast bike lane curbs with artwork from local artists or be marked brightly, so the curbs do not blend into the grey asphalt.

Background

At its April 7, 2021 meeting, the Hamilton Cycling Advisory Committee passed the following motion:

WHEREAS physical protection is the best practice to maintain cyclist safety;

WHEREAS vehicles regularly access bicycle infrastructure rendering the infrastructure unusable;

WHEREAS existing concrete curbs and flex posts are easily driven over by vehicles and crushed;

WHEREAS the goal for cycle tracks should be to be made for all ages and abilities; and,

WHEREAS grey concrete curbs are easily missed in summer or snow.

THEREFORE, BE IT RESOLVED:

(a) The Committee recommends pre-cast curb heights of no less than 25 cm tall be used to separate protected bike lanes from adjacent traffic lanes, where viable; and,

(b) The Committee recommends that the City initiate a pilot program to test painting select larger pre-cast bike lane curbs with artwork from local artists or be marked brightly, so the curbs do not blend into the grey asphalt.

Analysis/Rationale

Protected bike lanes are physically separated lanes for cyclists that run next to motorized vehicle traffic. Protected bike lanes represent the best practice to create safer on-street places to cycle and encourage the development of all-ages-and-abilities (AAA) cycling facilities. The physical protection makes it difficult for vehicles to enter the bike lane.

Committee members have raised concerns with automobiles regularly driving over and/or crushing the existing pre-cast concrete curbs and flex posts as they are low to the ground and the curbs can blend into the surrounding road surface. Debris from crushed concrete curbs can create a danger to motorists, cyclists and pedestrians. Installing taller pre-cast curbs or barriers, where viable, will support the development of Hamilton's AAA cycling network. Local streets where pre-cast concrete curbs and flex posts are installed include Hunter Street, Bay Street, and King Street West near Hwy. 403.

The Cycling Committee recommends that the City require that bicycle curbs be a minimum of 25 cm to increase protection, when viable. The City should also initiate a pilot program to decorate the larger barriers with artwork from local artists. If painting is not possible, other markings should be applied to differentiate the curbs from the roadway. The pilot would allow an opportunity to assess how well the paint or markings withstand roadway conditions, and the necessary resources to implement and maintain the paint or markings.

The Cycling Committee recommends larger, more sturdy concrete curbs so that cycling infrastructure is designed to last and look desirable to use to encourage cyclists on the edge of cycling to try the bicycle lanes.

CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Hamilton Water Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	August 11, 2021
SUBJECT/REPORT NO:	Biosolids Management Project - Approval of Change in Control of Harbour City Solutions (PW11098(h)) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Nick Winters (905) 546-2424 Ext. 1474
SUBMITTED BY: **SIGNATURE:**	Nick Winters Director, Water and Wastewater Operations Public Works Department

RECOMMENDATION

(a) That the General Manager of Public Works be authorized to execute a consent authorizing and approving the transfer of control of Bird Capital Hamilton Biosolids Holdings Inc. and Maple Hamilton Biosolids Holdings Inc., as requested by Synagro Hamilton Biosolids LP, in a form approved by the City Solicitor; and,

(b) That the consent to authorize and approve the transfer of control of Bird Capital Hamilton Biosolids Holdings Inc. and Maple Hamilton Biosolids Holdings Inc. be subject to the issuance of Final Completion Phase 1 and Final Completion certificates by the Independent Certifier as required and defined in the Project Agreement, and such other reasonable conditions as may be specified by the City Solicitor.

EXECUTIVE SUMMARY

On March 28, 2017, the City entered into an Agreement to construct a Biosolids processing facility for the City with the Harbour City Solutions General Partnership (HCS). This partnership consists of Synagro Hamilton Biosolids LP (60%), Bird Capital Hamilton Biosolids Holdings Inc. (20%), and Maple Hamilton Biosolids Holdings Inc. (20%). Construction work under the contract is the responsibility of the Bird-Maple Reinders Joint Venture (consisting of companies affiliated with the Bird and Maple

Partners of HCS). This construction work is now drawing to a close. The operation, maintenance, and renewal (OMR) work is the responsibility of Synagro Hamilton Operating LP, which is affiliated with the Synagro Partner of HCS. The OMR work has recently begun and has 29 more years to run on a 30-year term.

HCS has requested that the City consent to a transaction under which the Bird and Maple Partners of HCS will become owned by and subsequently amalgamated with companies affiliated with the Synagro Partner of HCS. Although the March 28, 2017 agreement requires City consent before this transaction may occur, the agreement also stipulates that the City cannot unreasonably withhold or delay its consent.

Staff have taken the position that any transfer of the Bird and Maple interests in the HCS partnership should not occur until there has been completion of all of the construction work which is the responsibility of the Bird-Maple Joint Venture, but that once this work has been finally completed Bird and Maple would become passive investors in the General Partnership and would thereafter have no active interest in the project. In such circumstances, it is appropriate that affiliates of the remaining Partner, Synagro, should be allowed to acquire the interests of Bird and Maple in the HCS General Partnership.

Alternatives for Consideration – Not Applicable

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: There are no financial implications.

Staffing: There are no staffing implications.

Legal: The Legal Services Division has been involved in the preparation of this report and agrees with both the recommendation and the proposed condition requiring final completion of construction before the City's consent will be granted. None of the changes to the share ownership of Bird and Maple affects any of the City's rights under the project agreement, the performance securities, or against the OMR Guarantor, Synagro Technologies, Inc.

HISTORICAL BACKGROUND

As communicated in Report PW11098(f), the Biosolids Management Project (the 'Project') is a Public-Private-Partnership arrangement that was supported through funding from Infrastructure Canada (formerly PPP Canada) for the design, build, finance, operation and maintenance (DBFOM) of a biosolids management facility and management of the City's biosolids for a 30-year term. The Project was initiated in December 2011, and on March 28, 2017 the City awarded and executed the Project

Agreement with Harbour City Solutions (HCS or Project Co) allowing the Project to move forward. The construction of the new facility reached substantial completion on May 11, 2020, starting the 30-year Operations, Maintenance, and Renewal (OMR) phase with HCS. The new biosolids management facility provides for the drying and pelletization of biosolids to a quality that is pathogen free and can be marketed as a fertilizer and/or sold as an alternate energy source.

The HCS General Partnership currently consists of Synagro Hamilton Biosolids LP (60%), Bird Capital Hamilton Biosolids Holdings Inc. (20%), and Maple Hamilton Biosolids Holdings Inc. (20%). Construction work under the contract is the responsibility of the Bird-Maple Reinders Joint Venture (consisting of companies affiliated with the Bird and Maple Partners of HCS). This construction work is now drawing to a close. The OMR work is the responsibility of Synagro Hamilton Operating LP, which is affiliated with the Synagro Partner of HCS. The OMR work has recently begun and has 29 more years to run on a 30-year term.

In May 2021 the City was approached by HCS with a Notice of Proposed Change in Control of Project Co (Notice). The Notice advises that the HCS Synagro Partner proposes that its general partner, Synagro Ontario Biosolids Company Incorporated (the "Purchaser") will incorporate two (2) new wholly-owned subsidiaries in order to purchase the shares of Maple Partner and Bird Partner from Maple Reinders PPP Ltd. ("Maple Parent") and Bird Capital Limited Partnership ("Bird Parent"), respectively, and amalgamated immediately after the transaction is complete. The Notice requests the City's approval of this change in control, which the City cannot unreasonably withhold or delay per provisions of the Project Agreement (PA), given that:

a) The Purchaser is not a Restricted Person;
b) The Purchaser is not a person whose standing or activities are inconsistent with the City's reputation or integrity, or a person whose standing or activities may compromise the City's reputation or integrity or the nature of the City's public works system;
c) The Proposed Transaction will not have a material adverse effect on the performance of the Project Operations or the Woodward Operations;
d) Since Service Commencement, the OMR Services have been and will be provided by a subsidiary of the OMR Guarantor, and this will not change as a result of the Proposed Change of Control;
e) The Proposed Transaction and the resulting impact to the Project would not cause Project Co or the City to violate Applicable Law;
f) The Proposed Transaction is to occur after the third anniversary of the date of Financial Close; and,
g) The Proposed Transaction will not result in a material change to the level of experience and expertise with biosolids management of the Project Co Group or the marketing of biosolids beneficial products by the Project Co Group.

Staff have taken the position that any transfer of the Bird and Maple interests in the HCS partnership should not occur until there has been completion of all of the construction work which is the responsibility of the Bird-Maple Joint Venture, but that once this work has been finally completed Bird and Maple would become passive investors in the General Partnership and would thereafter have no active interest in the project. In such circumstances, it is appropriate that affiliates of the remaining Partner, Synagro, should be allowed to acquire the interests of Bird and Maple in the HCS General Partnership. This change in control will not impact the OMR relationship between the City and Synagro Ontario Biosolids Company Incorporated, or any provisions of the PA.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

The report recommendation complies with all City Policies and the requirements of the Project Agreement between the City and Harbour City Solutions General Partnership.

RELEVANT CONSULTATION

Staff from the City Manager's Office, Legal Services Division assisted in developing this Report and associated Recommendations.

ANALYSIS AND RATIONALE FOR RECOMMENDATION(S)

Recommendation (a) is made so that signing authority for the consent be delegated to the General Manager of Public Works.

Recommendation (b) results from some remaining construction deficiencies with the Biosolids Management Facility that have yet to be fully rectified by Harbour City Solutions. The recommendation ensures that a change in control cannot proceed until these deficiencies have been rectified to the satisfaction of the City.

ALTERNATIVES FOR CONSIDERATION

Not Applicable.

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

None

CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Hamilton Water Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	August 11, 2021
SUBJECT/REPORT NO:	Standardization of Hamilton Water Equipment, Parts, Supplies and Services (PW21045) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Jazz Thandi (905) 546-2424 Ext. 5436
SUBMITTED BY: **SIGNATURE:**	Nick Winters Director, Water & Wastewater Operations Public Works Department 

RECOMMENDATION

(a) That the standardization of the products, services, manufacturers and distributors identified in Appendices “A”, “B” and “C” to Report PW21045 pursuant to Procurement Policy #14 - Standardization and as the single source of supply for the listed equipment, parts, supplies and services for the Hamilton Water Division be approved;

(b) That the General Manager of Public Works, or their designate, be authorized to negotiate, enter into and execute any required Contract and any ancillary documents required to give effect thereto with those suppliers identified in Appendices “A”, “B” and “C” to Report PW21045 with content acceptable to the General Manager of Public Works, and in a form satisfactory to the City Solicitor; and,

(c) That the General Manager of Public Works, or their designate, be authorized to amend any Contracts executed and any ancillary documents as required in the event that a service provider, manufacturer, or distributor identified in Appendices “A”, “B” or “C” to Report PW21045 undergoes a name change or a new distributor relationship in a form satisfactory to the City Solicitor.

EXECUTIVE SUMMARY

The Hamilton Water Division has a multitude of complex systems that consume a high volume of equipment, parts, supplies and services in order to maintain the facilities in a state of operability and good repair. This satisfies a number of goals related to legislative compliance, continuity of operation, health and safety, cost-efficiency, productivity and return on investment.

When facilitating the design and construction of new infrastructure, Hamilton Water strives to ensure that all equipment, parts, supplies and services that are identified in Appendices “A”, “B” and “C” to Report PW21045 are originally procured through the competitive bidding process.

The supplier base for upgrading, repairing and retrofitting existing water and wastewater infrastructure is widespread and complex. Procurement Policy #14 provides guidelines for standardization that streamline the process to purchase the materials, services and equipment required to service existing infrastructure and maintain regulatory compliance of our water and wastewater systems.

Purchasing equipment, parts, supplies and services through Policy #14 will ensure the compliance with current Procurement Policies, provide transparency of the procurement process, and control cost of replacement components. It will also further reduce the amount of staff time required to prepare Procurement Policy #11s (single or sole source) for all of the suppliers listed in Appendices “A”, “B” and “C” to Report PW21045.

The Procurement Policy requires an annual approval for each vendor when:

- There is only one source for supply of particular goods and/or services in the open market (sole source);
- A single source for the supply of a particular good and/or service is being recommended because it is more cost effective or beneficial for the City (single source).

The purpose of this report is to seek approval for the standardization of Hamilton Water equipment, parts, supplies and services as outlined in Appendices “A”, “B” and “C” to Report PW21045.

Alternatives for Consideration – See Page 4

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: Appendices “A”, “B” and “C” to Report PW21045 list the products and services recommended for standardization. From 2017 through 2020, the combined expenditures relative to these vendors has averaged $3.78M annually. Budget for these purchases are approved each year in the Water Wastewater and Storm Rate Budget.

Staffing: The approval of the recommendations contained within this report significantly reduces the amount of time spent on administrative work procuring goods and services

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

HISTORICAL BACKGROUND

Hamilton Water infrastructure includes the Woodward Water Treatment Plant, Woodward Wastewater Treatment Plant, Dundas Wastewater Treatment Plant, the Environmental Laboratory and 170 outstations, which represent more than 35,000 individual pieces of equipment and includes a vast number of individual components. The total asset replacement value for all Hamilton Water infrastructure including sewers, watermains and storm water management facilities is estimated to be approximately $10 billion.

The supplier base for upgrading, repairing and retrofitting existing water and wastewater infrastructure is widespread and complex. Suppliers must use various strategies and networks of distribution to have equipment, parts, supplies and services available to their customers. This includes suppliers with exclusive distribution rights to geographical areas, various levels of pricing according to whether the supplier has redistribution rights, or whether the supplier is considered a service provider or an end user.

Hamilton Water has previously undertaken Original Equipment Manufacturer (OEM) approval under Procurement Policy #11 for equipment, parts, supplies and services. In most cases there is no known aftermarket for parts and supplies available, or the OEM representative is the only source of specialized testing equipment and knowledge.

By allowing the standardization of equipment, parts, supplies and services Hamilton Water can ensure they have inventory of the specific makes and models required to allow for direct replacements (like for like) without having to modify electrical or piping configurations for equipment, as may be the case if aftermarket products were purchased. Modifications in most cases can be expensive as they

may require additional parts, labour, and engineering drawings.

By standardizing equipment, parts, supplies and services under the Procurement Policy #14, staff reduce the number of units in the inventory as the equipment can be quickly procured when required. This streamlines repairs and maintenance work and reduces down time which has a direct impact on our customers.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

The City of Hamilton Bylaw #20-205 - Procurement Policy, Policy #14, Schedule A, Section 4.14, allows for standardization.

RELEVANT CONSULTATION

These recommendations are the result of consultation with the Procurement Section of the Financial Services Division to ensure adherence to the Procurement Policy.

ANALYSIS AND RATIONALE FOR RECOMMENDATION

The selection of parts and supplies to replace existing equipment or components that have reached the end of their service life has been given considerable attention. Hamilton Water seeks to improve the efficiency and productivity of operations, while maintaining stable functionality and acceptable health and safety standards. Providing components that are not compatible or have questionable reliability may distract staff from performing the work safely and exposing them to unnecessary hazards.

Through a variety of sources including trade shows, periodicals, other municipalities, conferences, training, sales representatives and industry organizations, the market place will be monitored for new industry practices and suppliers to ensure the recommended brands and sources of supply contained in this report remain current and, in the City of Hamilton’s best interest and in compliance with the Procurement Policy.

ALTERNATIVES FOR CONSIDERATION

An alternative to the recommendations in this report is to revert back to completing Procurement Policy #11 forms for each and every vendor included in the Appendices of this report; however, it is not recommended as this practice requires an inordinate amount of staff time to complete; whereas the recommendations in this report achieves the same objective.

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.

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 PW21045 - Parts, Supplies, Equipment and Services for the City of Hamilton Environmental Laboratory.

Appendix “B” to Report PW21045 - Parts, Supplies, Equipment and Services for Plant Operations and Plant Maintenance and Technical Services.

Appendix “C” to Report PW21045 - Parts, Supplies, Equipment and Services for Additional Hamilton Water Sections

Parts, Supplies, Equipment and Services for the City of Hamilton Environmental Laboratory

Vendor Name	Services	Distributor	Est. Annual Spend 2021	Annual Spent 2020	Annual Spent 2019	Annual Spent 2018	Annual Spent 2017	Comments
AirOn HVAC Services Ltd.	The Makeup Air Unit (Engineered Air) is the sole unit that provides exhaust for all laboratory chemical hoods. AirOn has been providing this service and now has an intimate history of the needs and complexity until a replacement unit can be provided under separate contract.		$75,000	$75,629	$ 175,519.15	$ 74,650.00	$ 58,612.00	
Eurofins Abraxis Inc	Original Equipment Manufacturer spare parts, brokerage fees, supplies and services for existing equipment utilized by the Environmental Laboratory.	Original Equipment Manufacturer spare parts, brokerage fees, supplies and services for existing equipment utilized by the Environmental Laboratory.	$ 10,500.00	$ 9,552.00	$ 8,892.72	$ 6,675.00	$ 9,300.00	**USD Shipping not included (PT)**
Agilent Technologies Canada, Inc.	Original Equipment Manufacturer spare parts, brokerage fees, supplies and services for existing equipment utilized by the Environmental Laboratory.	Original Equipment Manufacturer spare parts, brokerage fees, supplies and services for existing equipment utilized by the Environmental Laboratory.	$ 100,000.00	$ 55,472.32	$ 63,855.20	$ 64,948.96	$ 66,610.49	
The Canadian Association for Laboratory Accreditation Inc. (CALA)	On site ISO 17025 Laboratory Assessments utilized by the Environmental Laboratory to maintain ISO 17025 Accreditation.		$ 15,000.00	$ 12,346.58	$ 24,265.70	$ 27,550.00	$ 22,400.00	
IDEXX Distribution, Inc./IDEXX Laboratories Canada Corp./IDEXX Laboratories, Inc.	Original Equipment Manufacturer spare parts, brokerage fees, supplies and services for existing equipment utilized by the Environmental Laboratory.	Original Equipment Manufacturer spare parts, brokerage fees, supplies and services for existing equipment utilized by the Environmental Laboratory.	$ 35,000.00	$33,420.61	$ 7,513.26	$ 16,805.00	NA	
Magnetar Corporation	Maintenance and Upgrades to SIRIUS Laboratory Information Management System (LIMS) database.		$ 55,000.00	$ 39,246.67	$ 25,432.48	$ 22,245.76	$ 21,601.37	
Millipore (Canada Ltd.)/ EMD Millipore Corporation/Millipore Canada Ltd.	Original Equipment Manufacturer spare parts, brokerage fees, supplies and services for existing equipment utilized by the Environmental Laboratory.	Original Equipment Manufacturer spare parts, brokerage fees, supplies and services for existing equipment utilized by the Environmental Laboratory.	$ 21,000.00	$ 14,147.42	$ 16,488.92	$ 17,671.00	$ 14,692.36	
PTC Proficiency Testing Canada (Proficiency Testing Canada Inc.)		Provider of specialized standards utilized by the Environmental Laboratory to maintain ISO 17025 Accreditation.	$ 13,000.00	$10,600.00	NA	NA	NA	
SGS Canada Inc.	Laboratory Analytical Services Accredited to ISO 17025 and MECP Licensed for regulatory drinking water analysis for specific tests listed in their scope of analysis.		$ 90,000.00	$ 123,171.35	$ 34,059.27	$ 38,738.10	$ 109,074.00	

Parts, Supplies, Equipment and Services for the City of Hamilton Environmental Laboratory

Vendor Name	Services	Distributor	Est. Annual Spend 2021	Annual Spent 2020	Annual Spent 2019	Annual Spent 2018	Annual Spent 2017	Comments
Skalar Inc.	Original Equipment Manufacturer spare parts, brokerage fees, supplies and services for existing equipment utilized by the Environmental Laboratory.	Original Equipment Manufacturer spare parts, brokerage fees, supplies and services for existing equipment utilized by the Environmental Laboratory.	$ 20,000.00	$ 19,334.95	$ 13,377.95	$ 22,071.50	$ 17,794.00	
Systems Plus (1936100 Ontario Inc.)		Provider of pre-cleaned, pre-labelled Laboratory Bottles for all analytical analysis including regulatory drinking water.	$ 50,000.00	$ 35,568.82	$ 34,607.66	$ 31,150.74	$ 44,404.30	
VWR (A Part of Avantor) / VWR International Co./Avantor Delivered by VWR **Environmental Resource Associates (ERA)**		Provider of specialized standards utilized by the Environmental Laboratory to maintain ISO 17025 Accreditation.	$ 30,000.00	$ 25,895.00	$ 21,000.00	$ 20,616.00	$ 23,342.00	
			$ 514,500.00	$ 454,384.72	$ 425,012.31	$ 343,122.06	$ 387,830.52	

Vendor Name	Original Equipment	Service	Distributor	Goods	Services	Distributor	Estimated Spend 2021	Annual Spent 2020	Annual Spent 2019	Annual Spent 2018	Annual Spent 2017	Comments
3M	x			Original Equipment Manufacturer for DBI-Sala Davit Guard System and associated parts.			$ 24,000.00	$ 6,000.00	$ -	$ -	$ -	
ABB Inc.	x	x	x	Original Equipment Manufacturer for analyzers and transmitters, as well as GE Industrial Solutions electrical control equipment, switchgear, soft starters, variable frequency drives. Power distribution equipment / Centrifuge power and control	Original Equipment Manufacturer, sole goods and authorized service provider for ABB and GE Industrial Solutions products.	Original Equipment Manufacturer, sole goods and authorized service provider for ABB and GE Industrial Solutions products.	$ 5,500.00	$ -	$ 2,280.00	$ 13,768.00	$ -	
ACI Instrumentation Ltd.			x			ACI Instruments LTD is the exclusive Ontario distributor for Pulsar, Greyline, Hydroflow and Krohne products.	$ 35,000.00	$ 21,000.00	$ 22,589.00	$ 79,319.00	$ 8,679.88	
Active Scale Manufacturing Inc.	x	x	x	Original Equipment Manufacturer for the truck weigh scale system used at the Woodward WWTP.	Original Equipment Manufacturer, sole goods and authorized service provider for Active Scale products.	Original Equipment Manufacturer, sole goods and authorized service provider for Active Scale products.	$ 2,500.00	$ 3,872.00	$ 850.00	$ -	$ 1,564.00	
Additel	x			Original Equipment Manufacturer for process measurement and calibration monitoring equipment.			$ -	$ -	$ -	$ -	$ -	
Advantech	x			Original Equipment Manufacturer for process measurement and calibration monitoring equipment.			$ -	$ -	$ -	$ -	$ -	
Aerzen Canada Inc.	x	x	x	Original Equipment Manufacturer for Aerzen blowers and associated parts.	Original Equipment Manufacturer, sole goods and authorized service provider for Aerzen Canada products.	Original Equipment Manufacturer, sole goods and authorized service provider for Aerzen Canada products.	$ 4,000.00	$ -	$ 1,788.90	$ 1,040.60	$ 11,437.31	
Alfa Laval Canada Inc.	x	x	x	Original Equipment Manufacturer for centrifuges, gravity thickener belts (formerly Ashbrooks) and associated parts.	Original Equipment Manufacturer, sole goods and authorized service provider for Alfa Laval Canada Inc. and Ashbrooks products.	Original Equipment Manufacturer, sole goods and authorized service provider for Alfa Laval Canada Inc. and Ashbrooks products.	$ 75,000.00	$ 10,035.00	$ 26,114.02	$315,342.13	$ 59,451.79	
Armstrong	x			Original Equipment Manufacturer for pumps, hot waterrecirculation systems and associated parts.			$ -	$ -	$ -	$ -	$ -	
Asco	x			Original Equipment Manufacturer for regulatory flow control and pressure control equipment.			$ -	$ -	$ -	$ -	$ -	
Asea Brown Boveri (ABB)	x			Original Equipment Manufacturer for regulatory water quality monitoring equipment.			$ -	$ -	$ -	$ -	$ -	
ASI Group		x			Provision of underwater services for inspection, repair, cleanout, or installation of equipment.		$ -	$ -	$ 8,151.00	$ 25,111.00	$ 7,113.00	
ATI	x			Original Equipment Manufacturer for gas monitoring equipment.			$ -	$ -	$ -	$ -	$ -	
Auma Actuators Inc	x			Original Equipment Manufacturer for actuators.			$ -	$ -	$ -	$ -	$ -	

Vendor Name	Original Equipment	Service	Distributor	Goods	Services	Distributor	Estimated Spend 2021	Annual Spent 2020	Annual Spent 2019	Annual Spent 2018	Annual Spent 2017	Comments
Avensys Solutions Inc.		x	x		Sole goods and Original Equipment Manufacturer authorized service provider for Teledyne ISCO and QCEC automatic water/wastewater sampling and flow monitoring equipment for Canada.	Sole distributor for Fluid Components International LLC products for the Province of Ontario and sole distributor for Teledyne ISCO and QCEC automatic water/wastewater sampling and flow monitoring equipment for Canada.	$ 50,000.00	$ 70,571.00	$ 34,219.00	$ 48,481.45	$ 28,872.00	
AW Chesterton Co Ltd	x	x	x	Original Equipment Manufacturer for Mechanical Seal Pump and Valve Packing, Engineered Polymer Hydraulic/Pneumatic Seals, Sheet Gaskets, Metal and Concrete Composite Coating Systems, MRO and Production Cleaners and Degreasers, Lubricants and Metal Working Fluids.	Original Equipment Manufacturer, sole goods and authorized service provider for AW Chesterton Co. Ltd products and Inpro/Seals® Custom Engineered Bearing Protection and Process Seals.	Exclusive distributor for Inpro/Seals® Custom Engineered Bearing Protection and Process Seals.	$ 4,500.00	$ 1,542.00	$ 3,666.60	$ 10,560.00	$ 1,027.00	
Aysix Analytical Equipment	x			Original Equipment Manufacturer for process monitoring equipment.			$ -	$ -	$ -	$ -	$ -	
Baker Hughes Energy Services Canada (formerly Bentley Nevada and General Electric Canada)	x	x	x	Original Equipment Manufacturer for pump monitoring equipment.	Original Equipment Manufacturer, sole goods and authorized service provider for Bentley Nevada products and services, including but not limited to vibration monitoring equipment and	Original Equipment Manufacturer, sole goods and authorized service provider for Bentley Nevada products, including but not limited to vibration monitoring equipment and associated parts.	$ 5,000.00	$ -	$ -	$ 6,442.50	$ 7,272.50	
Benshaw	x	x	x	Original Equipment Manufacturer for soft starters, variable frequency drives and switchgear equipment.	Original Equipment Manufacturer, sole goods and authorized service provider for Benshaw products including soft starters variable frequency drives and switchgear products and services.	Original Equipment Manufacturer, sole goods and authorized service provider for Benshaw products including soft starters variable frequency drives and switchgear products and services.	$ 4,000.00	$ -	$ -	$ 8,028.00	$ 3,320.00	
Blue-White	x			Original Equipment Manufacturer for chemical metering and dosing equipment.			$ -	$ -	$ -	$ -	$ -	
Brentwood Industries	x			Original Equipment Manufacturer for clarifier tank equipment and associated parts.			$ -	$ -	$ -	$ -	$ -	
C & M Environmental Technologies Inc.		x	x		Sole Original Equipment Manufacturer authorized service provider for Brentwood, WesTech, Environmental Dynamics International and SPIRAC products.	Sole authorized distributor for Brentwood, WesTech, Environmental Dynamics International and SPIRAC products. Sole authorized sales representative for WesTech sludge mixers and associated parts in Ontario.	$600,000.00	$ -	$ -	$ 21,376.88	$ 86,831.29	
Can-Am Instruments Ltd.		x	x		Sole Original Equipment Manufacturer authorized service provider for Hach Flow & Sampling in Ontario.	Sole authorized distributor of Hach Flow & Sampling products in Ontario.	$ 12,000.00	$ 10,073.00	$ 1,958.34	$ 13,955.76	$ 22,082.60	
Cancoppas Limited		x	x		Sole Original authorized service provider for Aysix Technologies products, and GWF Technologies.	Sole authorized distributor for Aysix Technologies products in Canada, and GWF Technologies products in Ontario.	$ 30,000.00	$ 62,427.00	$ 24,677.25	$ 19,765.42	$ 2,617.24	

Vendor Name	Original Equipment	Service	Distributor	Goods	Services	Distributor	Estimated Spend 2021	Annual Spent 2020	Annual Spent 2019	Annual Spent 2018	Annual Spent 2017	Comments
Caterpillar Inc.	x			Original Equipment Manufacturer for engines, generators, controllers and associated parts for back-up power equipment.			$ -	$ -	$ -	$ -	$ -	
Chemline	x			Original Equipment Manufacturer for pressure control devices, valves, control and regulation devices, piping, tubing and flow meters.			$ -	$ -	$ -	$ -	$ -	
Cla-Val	x			Original Equipment Manufacturer for specialty valves and flow monitoring.			$ -	$ -	$ -	$ -	$ -	
Conval Process Solutions Inc.			x			Sole authorized distributor for GA Industries products in Ontario.	$ 15,000.00	$ -	$ 23,618.45	$ 13,709.00	$ 14,400.72	
Crane Pumps And Systems Canada	x			Original Equipment Manufacturer for pumps and associated parts.			$ -	$ -	$ -	$ -	$ -	
Danfoss / Vacon	x			Original Equipment Manufacturer for Vacon soft starters and variable frequency drives.			$ -	$ -	$ -	$ -	$ -	
Devine & Associates Ltd.		x	x			Sole authorized distributor of Cla-Val products in Ontario.	$ 10,000.00	$ 4,086.00	$ 22,324.00	$ 4,216.00	$ 7,751.86	
Dezurik	x			Original Equipment Manufacturer for valves.			$ -	$ -	$ -	$ -	$ -	
Directrik			x			Sole authorized distributor for Seepex, Vogelsang, Flowserve (including but not limited to Worthington, Pacific, Ingersoll-Rand, Byron Jackson, Durco, Innomag and Sihi) and Trillium Flow Technologies (WEMCO, WSP) products for the province of Ontario, Hidrostal/Bedford pumps	$ 6,000.00	$ 18,067.00	$ 24,572.53	$ -	$ -	
Drive Centre		x	x		Original Equipment Manufacturer authorized service provider for AC drive systems including Danfoss, VLT and VACON brands.		$ 6,000.00	$ -	$ 11,845.60	$ -	$ -	
Eaton Industries Canada Company	x	x		Original Equipment Manufacturer parts for electrical distribution equipment covering Eaton Industries Canada, Cutler-Hammer, Westinghouse, Cooper, and Klockler Moller brand names. Parts include transformers, switchgear, breakers, relays/power meters, Ct’s, Pt’s, surge protectors and other associated electrical distribution parts.	Original Equipment Manufacturer authorized service provider for power distribution systems covering Eaton Industries Canada, Cutler-Hammer, Westinghouse, Cooper, and Klockler Moller brand names. Field service and technical support for the uninterrupted power supply units for the power distribution system.		$300,000.00	$ 77,000.00	$127,341.00	$124,004.43	$235,974.10	
Endress+Hauser	x			Original Equipment Manufacturer for process measurement and optimization monitoring equipment.			$ -	$ -	$ -	$ -	$ -	

Vendor Name	Original Equipment	Service	Distributor	Goods	Services	Distributor	Estimated Spend 2021	Annual Spent 2020	Annual Spent 2019	Annual Spent 2018	Annual Spent 2017	Comments
Envirocan Wastewater Treatment		x	x		Sole Original Equipment Manufacturer authorized service provider for JWC Environmental, Muffin Monster®, Channel Monster®, Auger Monster®, Screenings Washer Monster®, Honey Monster® and Monster Screening Systems®	Sole authorized distributor for JWC Environmental, Muffin Monster®, Channel Monster®, Auger Monster®, Screenings Washer Monster®, Honey Monster® and Monster Screening Systems® products.	$ 60,000.00	$ -	$ -	$ 36,300.00	$138,764.00	
Environmental Dynamics	x			Original Equipment Manufacturer for aeration diffusers and associated parts.			$ -	$ -	$ -	$ -	$ -	
Eramosa Engineering Inc.	x	x		Consultant and provider of the SCADA architecture , DATA, Network under SCADA master plan , SCADA _E network provider.	Sole Original Equipment Manufacturer authorized service agent in North America for existing eRIS software users. SCADA support service and maintenace provider for network,data, SCADA architecture core system level.		$300,000.00	$221,826.00	$ 90,331.64	$430,455.47	$612,110.71	
ESC Automation Inc.		x	x		Sole Original Equipment Manufacturer authorized service provider for Delta Controls	Sole authorized distributor for Delta Controls products.	$ 60,000.00	$ 54,000.00	$ 43,937.00	$ 82,887.00	$ 46,458.00	
Evoqua Water Technologies Ltd (Formerly US Filter)	x		x	Original Equipment Manufacturer for intake screens, clarification systems, separation systems and associated parts as well as disinfection, water quality and regulatory monitoring equipment.		Sole authorized distributor for Wallace & Tiernan equipment and associated parts.	$120,000.00	$120,508.00	$ 21,104.99	$549,684.42	$ 26,081.07	
Fag Bearings	x			Original Equipment Manufacturer for bearing as identified on motor name plates.			$ -	$ -	$ -	$ -	$ -	
Floval Equipment Ltd.		x	x		Sole authorized service provider for HydraTite Seal products.	Sole authorized distributor for BNW Valve, HydraTite Seal, DeZURIK Inc. (DeZURIK, APCO, Willamette, and Hilton) and Hebdraulique products.	$ 20,000.00	$ -	$ 14,000.00	$ 19,723.00	$ 588.73	
Flow Motion	x			Original Equipment Manufacturer for chemical metering equipment.			$ -	$ -	$ -	$ -	$ -	
Gerrie Electric Wholesale Limited		x	x	Original Equipment Manufacturer for electrical distribution equipment including transformers, switchgear, breakers, relays/power meters, Ct’s, Pt’s, surge protectors, motors and other associated distribution equipment.	Sole Original Equipment Manufacturer authorized service provider for Rockwell Automation, Allen Bradley, Endress+Hauser brand electrical distribution systems and parts,and Advantech SCADA OIT computer.	Sole authorized distributor for Rockwell Automation, Allen Bradley, and Endress+Hauser brand electrical distribution systems and parts. Rockwell Agent for technical support under Rockwell technical support agreement.	$130,000.00	$243,200.00	$135,000.00	$126,582.97	$ 7,633.48	
Golden Anderson	x			Original Equipment Manufacturer for valves and associated parts.			$ -	$ -	$ -	$ -	$ -	
Gorman Rupp	x			Original Equipment Manufacturer for pumps and associated parts.			$ -	$ -	$ -	$ -	$ -	
Gratec	x			Original Equipment Manufacturer for mixers and associated parts.			$ -	$ -	$ -	$ -	$ -	

Vendor Name	Original Equipment	Service	Distributor	Goods	Services	Distributor	Estimated Spend 2021	Annual Spent 2020	Annual Spent 2019	Annual Spent 2018	Annual Spent 2017	Comments
GrayMatter Systems		x	x		Sole authorized service and support representive in Canada for GE Digital Software as well as being assigned as the Partner of Record to Service the City of Hamilton. Provides support for the GE Historian and Alarm and Events software	Sole authorized service and support representive in Canada for GE Digital Software as well as being assigned as the Partner of Record to Service the City of Hamilton.	$250,000.00	$ 20,483.00	$ -	$ -	$ -	
Grundfos	x			Original Equipment Manufacturer for submersible pumps and related parts, and chemical dosing equipment.			$ -	$ -	$ -	$ -	$ -	
Hach Sales & Service LP	x	x	x	Original Equipment Manufacturer for regulatory analyzers, monitoring and control devices.	Original Equipment Manufacturer authorized service provider for repair, start-up service, warranty repair or maintenance on HACH instruments.	Original Equipment Manufacturer and sole source distributor for all Hach branded products.	$130,000.00	$259,394.00	$ 89,537.75	$ 73,963.28	$ 89,869.32	
HCE Telecom Inc.	x	x	x	City authorized SCADA ISP provider	HCE provides remote SCADA access and communications to Hamilton Water Infrastructure including fibre optic cable installation and repair services.	HCE is the disrtibutor for communication hardware, routers, switches and cellular antennas.	$ 50,000.00	$ 29,000.00	$ -	$ -	$ -	
Hydroflow	x			Original Equipment Manufacturer for electronic water conditioners and associated parts.			$ -	$ -	$ -	$ -	$ -	
Hydromatic Pumps	x			Original Equipment Manufacturer for pumps and associated parts.			$ -	$ -	$ -	$ -	$ -	
Hydrovision (GWF Technologies)	x			Original Equipment Manufacturer for flow monitoring equipment.			$ -	$ -	$ -	$ -	$ -	
Indachem Inc		x	x		Sole Original Equipment Manufacturer authorized service representative for PolyBlend ® line of products, equipment and associated parts.	Sole authorized distributor for PolyBlend ® line of products, equipment and associated parts.	$ 34,000.00	$ 34,200.00	$ -	$ -	$ -	
Flygt	x			Original Equipment Manufacturer for pumps and associated parts.			$ -	$ -	$ -	$ -	$ -	
John Brooks Company Limited		x	x		Sole Original Equipment Manufacturer authorized service provider for Vaughan Co. Inc. (including Chopper, Triton, and Rotomix brands).	Sole authorized distributor for Engineered Systems (Municipal) , Vaughan Co. Inc. (Chopper, Triton, Rotomix), Goulds Water Technology.	$ 15,000.00	$ 10,186.00	$ 270.60	$ 75,878.02	$ 3,096.00	
John Crane	x	x	x	Original Equipment Manufacturer for seals, packing, couplings and associated parts.	Sole Original Equipment Manufacturer authorized service provider of John Crane products.	Original Equipment Manufacturer and sole goods distributor of John Crane products.	$ 12,500.00	$ 22,400.00	$ 9,455.84	$ 13,829.20	$ 3,698.50	

Vendor Name	Original Equipment	Service	Distributor	Goods	Services	Distributor	Estimated Spend 2021	Annual Spent 2020	Annual Spent 2019	Annual Spent 2018	Annual Spent 2017	Comments
JSM Controls Inc		x			Service for chlorination equipment and gas chlorination systems in water/wastewater treatment applications. JSM controls maintains the correct TSSA licensing and credentials to preform this work and are well versed with the process and equipment within Hamilton Water's facilities. Their ongoing sole source service support ensures that timely service is received for highly regulated process equipment, to support regulatory compliance and continuance of operations.		$ 25,000.00	$ 19,000.00	$ 40,000.00	$ 40,894.00	$132,000.29	
JWC Environmental - Muffin Monster	x			Original Equipment Manufacturer for grinders and associated parts.			$ -	$ -	$ -	$ -	$ -	
Krohne	x			Original Equipment Manufacturer for flow meters.			$ -	$ -	$ -	$ -	$ -	
KSB Pumps Inc. (Canada)	x	x	x	Original Equipment Manufacturer for pumps and associated parts.	Sole Original Equipment Manufacturer authorized service provider in Canada for all KSB manufactured pumps, valves, parts and service.	Original Equipment Manufacturer and sole goods provider in Canada for all KSB manufactured pumps, valves, parts and service.	$ -	$ -	$ -	$ 9,102.26	$ -	
Lakeside Process Controls Ltd		x	x		Sole Original Equipment Manufacturer authorized service provider for Emerson Automation Solutions products including, but not limited to, MicroMotion flowmeters, Fisher Control Valves, DeltaV® Control Systems, and the Rosemount brand of measurement devices.	Sole authorized distributor for Emerson Automation Solutions products including, but not limited to, MicroMotion flowmeters, Fisher Control Valves, DeltaV® Control Systems, and the Rosemount brand of measurement devices.	$ 10,000.00	$ 32,463.00	$ 4,638.06	$ 1,280.00	$ 9,116.08	
Landmark Municipal Services ULC (LMS)		x			Providers of specialized services including the annual aircraft lighting and maintenance on water towers, and water tower maintenance including cleaning. Landmark maintains the required qualifications for tower climbing, harnessing, safety planning, rescue planning documentation and personnel, etc.		$ 45,000.00	$ 10,350.00	$ 18,500.00	$ 9,800.00	$ 9,361.05	
Link Belt	x			Original Equipment Manufacturer for bearings, seals and associated parts.			$ -	$ -	$ -	$ -	$ -	
Lonestar	x			Original Equipment Manufacturer for aeration blowers and associated parts.			$ -	$ -	$ -	$ -	$ -	

Vendor Name	Original Equipment	Service	Distributor	Goods	Services	Distributor	Estimated Spend 2021	Annual Spent 2020	Annual Spent 2019	Annual Spent 2018	Annual Spent 2017	Comments
Lotowater Technical Services Inc		x			Lotowater is the preferred service provider to the City of Hamilton for potable water wells assessment, maintenance and repair. They are local and readily available to respond to emergency situations, they have profound experience with each of the City's communal drinking water wells, and they maintain an inventroy of repair parts and equipment at their facility.		$ 35,000.00	$135,230.00	$ -	$ -	$ 33,178.69	
Mccrometer	x			Original Equipment Manufacturer for regulatory flow monitoring devices.			$ -	$ -	$ -	$ -	$ -	
Micro Pump	x			Original Equipment Manufacturer of pumps for regulatory water quality sampling systems and chemical metering equipment.			$ -	$ -	$ -	$ -	$ -	
Moyno Inc	x			Original Equipment Manufacturer for pumps, grinders and associated parts.			$ -	$ -	$ -	$ -	$ -	
MSA	x			Original Equipment Manufacturer for gas monitoring equipment, self contained breathing apparatus, confined space entry equipment, and associated replacement parts.			$ -	$ -	$ -	$ -	$ -	
Myers Pumps	x			Original Equipment Manufacturer for pumps and associated parts.			$ -	$ -	$ -	$ -	$ -	
NatPro - DXP			x			Sole authorized distributor for Pentair and Aurora products.	$ -	$ -	$ -	$ -	$ -	
Netzsch	x			Original Equipment Manufacturer for pumps and associated parts.			$ -	$ -	$ -	$ -	$ -	
Nivus	x			Original Equipment Manufacturer for flow and level control equipment.			$ -	$ -	$ -	$ -	$ -	
Pentair	x			Original Equipment Manufacturer for Aurora, Aurora Fire, Fairbanks, Nijhuis, Layne-Vertiline, VTSH (vertical turbine solid handling) products and associated parts.			$ -	$ -	$ -	$ -	$ -	
Philadelphia Mixing Solutions	x			Original Equipment Manufacturer for mixers and associated parts.			$ -	$ -	$ -	$ -	$ -	
PMC Engineering	x			Original Equipment Manufacturer for level, pressure and process monitoring and control equipment.			$ -	$ -	$ -	$ -	$ -	
Pro Aqua Inc			x			Sole authorized distributor for Evoqua’s Wastewater Treatment Group equipment.	$ 2,500.00	$ 2,336.00	$ 2,080.70	$110,566.68	$ -	
Prominent	x			Original Equipment Manufacturer for regulatory water quality monitoring and disinfection equipment.			$ -	$ -	$ -	$ -	$ -	
Pulsar	x			Original Equipment Manufacturer for level monitoring equipment.			$ -	$ -	$ -	$ -	$ -	

Vendor Name	Original Equipment	Service	Distributor	Goods	Services	Distributor	Estimated Spend 2021	Annual Spent 2020	Annual Spent 2019	Annual Spent 2018	Annual Spent 2017	Comments
Red Valve	x			Original Equipment Manufacturer for valves and associated parts.			$ -	$ -	$ -	$ -	$ -	
Rockwell Automation (Allen-Bradley)	x	x		Original Equipment Manufacturer for soft starters, variable frequency drives and SCADA components.	Technical support provider for their provided hardware and software		$ -	$ -	$ -	$ -	$ -	
Ro-Flo Compressors LLC	x			Original Equipment Manufacturer for compressors and associated parts.			$ -	$ -	$ -	$ 60,558.00	$ -	
Rotork Controls (Canada) Ltd.	x	x	x	Original Equipment Manufacturer for actuators.	Original Equipment Manufacturer authorized service provider.	Original Equipment Manufacturer authorized distributor.	$ 15,000.00	$ 13,000.00	$ 17,205.05	$ 43,910.66	$ 28,903.43	
S&C Electric Canada	x	x		Original Equipment Manufacturer for outdoor power distribution and control devices within S&C cabinets.	Original Equipment Manufacturer authorized service provider for outdoor power distribution and control devices within S&C		$ -	$ -	$ -	$ -	$ -	
SCG (Formerly Metcon Sales & Engineering Limited			x			Sole authorized distributor for Spencer Equipment, Watson Marlow Fluid Technology and ProMinent Canada products.	$ 55,000.00	$ 70,000.00	$ 37,965.04	$ 52,918.46	$ 61,045.42	
Schneider Electric Canada	x	x		Original Equipment Manufacturer for for the power distribution system, soft starters and variable frequency drives including Shneider Electric, Federal Pioneer, and Square D brands. Original Equipment Manufacturer for ION Metering parts and relays.	Original Equipment Manufacturer authorized service provider for the power distribution system, soft starters and variable frequency drives including Shneider Electric, Federal Pioneer, Square D brands. Original Equipment Manufacturer authorized service provider for ION Metering parts and relays. Equipment Manufacturer Provider of SME 2020 software software		$ 20,000.00	$ -	$ -	$ 10,874.44	$ -	
Schweitzer	x	x		Original Equipment Manufacturer for protective relay and communications equipment associated with the power distribution system.	Original Equipment Manufacturer authorized service provider for protective relay and communications equipment associated with the power		$ -	$ -	$ -	$ -	$ -	
Schwing Bioset Inc	x		x	Original Equipment Manufacturer for biosolids equipment and associated parts.		Original Equipment Manufacturer and sole distributor of Schwing spare parts used on Schwing equipment.	$ 50,000.00	$ 34,000.00	$230,598.16	$ 26,132.50	$ -	
Seepex	x			Original Equipment Manufacturer for pumps and associated parts.			$ -	$ -	$ -	$ -	$ -	Refer to Directrik
Siemens Canada Limited	x	x		Original Equipment Manufacturer for power distribution, soft starters and variable frequency drives.	Original Equipment Manufacturer authorized service provider for power distribution, soft starters and variable frequency drives.		$ 20,000.00	$ -	$ -	$ 58,480.04	$ 50,617.00	
Singer Valve	x			Original Equipment Manufacturer for valves and associated parts.			$ -	$ -	$ -	$ -	$ -	
SKF Bearings	x			Original Equipment Manufacturer for bearings as identified on motor name plates.			$ 10,000.00	$ -	$ 12,500.00	$ -	$ -	
Smart Turner Pumps Inc.	x		x	Original Equipment Manufacturer for pumps and associated parts.		Original Equipment Manufacturer and sole distributor of Smart Turner Pumps.	$ 20,000.00	$ 58,370.00	$ -	$ -	$ -	

Vendor Name	Original Equipment	Service	Distributor	Goods	Services	Distributor	Estimated Spend 2021	Annual Spent 2020	Annual Spent 2019	Annual Spent 2018	Annual Spent 2017	Comments
Smith & Loveless, Inc.	x		x	Original Equipment Manufacturer for pumps, grit classification systems and associated parts.		Original Equipment Manufacturer and sole distributor of Smith & Loveless products and equipment.	$ 25,000.00	$ 24,000.00	$ 85,761.18	$ 49,961.63	$ 10,065.50	
Spaans Babcock	x		x	Original Equipment Manufacturer for screws, gear box and associated parts.		Original Equipment Manufacturer and sole distributor Spaans Babcock products and training / inspection services in North America. The products include Spaans Babcock screw pumps, hydro screw generators, fine screen and any spare parts related to these products.	$ 20,000.00	$ 71,125.00	$ 8,455.00	$ 7,833.00	$ 16,925.14	
SPD Sales Limited		x	x		Sole Original Equipment Manufacturer authorized service provider for Grundfos, Kurz Instruments, Vega, Xylem Brands (YSI IQ Sensornet, Royce Technologies & WTW products).	Sole authorized distributor for MSA Safety Inc. (for Fixed Gas and Flame Detection products), ATI products, Blue- White Industries Pro-Series M product line, Nivus, Grundfos, Kurz Instruments, Chemtrac, and Xylem Brands (YSI IQ Sensornet, Royce Technologies & WTW products).	$ 50,000.00	$115,781.00	$ 79,801.75	$ 43,437.00	$ 59,499.57	
Spirac	x			Original Equipment Manufacturer for grit handling augers and associated			$ -	$ -	$ -	$ -	$ -	
SPX Flow	x			Original Equipment Manufacturer for mixer process systems and associated parts.			$ -	$ -	$ -	$ -	$ -	
SRP Control Systems Limited		x	x		Sole Original Equipment Manufacturer authorized service provider of Additel products in Canada.	Sole authorized distributor of Additel, PMC Engineering Legacy Series Industrial Pressure Transmitters, PMC Engineering VersaLine Series Submersible Depth and Level Sensors, and STS Series Precision Pressure Sensors in Canada.	$ 15,000.00	$ 19,920.00	$ 16,215.00	$ -	$ -	
Suez Treatment Solutions Inc. (formerly Infilco Degremont)	x		x	Original Equipment Manufacturer for Climber Screen ®,and associated parts.		Original Equipment Manufacturer and sole distributor of Climber Screen ®, and associated parts.	$150,000.00	$ 52,547.00	$ -	$357,720.21	$176,538.71	
Syntec Process Equipment Ltd.		x	x		Sole Original Equipment Manufacturer authorized service provider for Fontaine-Aquanox and Val-Matic products.	Sole authorized distributor for Banyan Products, Fontaine-Aquanox, Master Distributor of Chemline Plastics, J&S Valve Inc., Netzsch, Singer, Limitorque Products for Simons Automation and Supply, Trueline Valve Corp., Val-Matic,	$100,000.00	$172,381.00	$197,007.30	$129,690.50	$ 75,000.96	
T.D. Rooke Associates Limited			x			Sole authorized distributor for SPXFLOW – Lightning Mixers, and associated parts.	$ 25,000.00	$ -	$ -	$ -	$ 55,300.28	
Teledyne (ISCO)	x			Original Equipment Manufacturer for auto samplers.			$ -	$ -	$ -	$ -	$ -	

Vendor Name	Original Equipment	Service	Distributor	Goods	Services	Distributor	Estimated Spend 2021	Annual Spent 2020	Annual Spent 2019	Annual Spent 2018	Annual Spent 2017	Comments
Toromont Industries Ltd.		x	x	Original Equipment Manufacturer for all parts pertaining to Power Distribution Back-up Generator systems.	Sole authorized service provider for CAT branded products and parts andback-up generator systems. Service provider for the ELU Instrumentation and control system (I&C)	Sole authorized dealer for the sale of CAT branded products and parts.	$ 10,000.00	$ -	$ 1,094.34	$ -	$ -	
Transcat Inc		x			An ISO 17025 accredited organization that is able to provide on-site calibration services on a multitude of different instruments. Standardization ensures timely and expert response to regulatory instrumentation equipment.		$ 17,500.00	$ 16,745.00	$ 16,844.00	$ 21,835.34	$ 15,847.54	
Trojan Technologies	x			Original Equipment Manufacturer for disinfection process equipment.			$ -	$ -	$ -	$ -	$ -	
Troy-Ontor Inc		x	x		Sole Original Equipment Manufacturer authorized service provider for Auma products in Canada.	Sole authorized distributor for Auma products in Canada.	$ 20,000.00	$ 18,000.00	$ 19,431.92	$ 29,897.00	$ -	
UGSI Chemical Feed, Inc	x			Original Equipment Manufacturer for PolyBlend ® product line of equipment, including but not limited to pumps, mixers, drives, controllers, ORP, Strantrol Analyzers and Chemical Feed/mixing systems.			$ -	$ -	$ -	$ -	$ -	
United Electric Controls	x			Original Equipment Manufacturer for pressure control and monitoring			$ -	$ -	$ -	$ -	$ -	
Val-Matic	x			Original Equipment Manufacturer for valves and associated parts.			$ -	$ -	$ -	$ -	$ -	
Varec	x			Original Equipment Manufacturer for digester equipment and associated parts.			$ -	$ -	$ -	$ -	$ -	
Vaughan Pumps	x			Original Equipment Manufacturer for pumps and associated parts.			$ -	$ -	$ -	$ -	$ -	
Vega	x			Original Equipment Manufacturer for process control equipment.			$ -	$ -	$ -	$ -	$ -	
Wajax Industrial Components		x	x		Sole Original Equipment Manufacturer authorized service provider for Moyno Progressing Cavity Pumps in Ontario.	Sole authorized distributor for Moyno Progressing Cavity Pumps in Ontario.	$ 50,000.00	$101,000.00	$ 23,845.51	$325,401.64	$ 14,323.32	
Wallace And Tiernan	x			Original Equipment Manufacturer for disinfection process equipment.			$ -	$ -	$ -	$ -	$ -	
Westech Industrial Ltd	x	x	x	Original Equipment Manufacturer for flame arresters and associated parts. OEM provider for WesTech sludge mixers and associated parts in Canada.	Sole Original Equipment Manufacturer authorized service provider for Emerson and Varec digeseter gas or biogas equipment in Canada.	Sole authorized sales representative for Emerson and Varec equipment for Emerson and Varec digeseter gas or biogas equipment in Canada.	$ 10,000.00	$ -	$ -	$ 5,013.00	$ -	
West Tech Engineering	x	x		Sole Manufacturer of digester mixers	Sole service provider for the digester mixers		$ -	$ -	$ -	$ -	$ -	

Vendor Name	Original Equipment	Service	Distributor	Goods	Services	Distributor	Estimated Spend 2021	Annual Spent 2020	Annual Spent 2019	Annual Spent 2018	Annual Spent 2017	Comments
Xylem Canada Company	x	x		Sole authorized distributor of Flyght branded submersible pumps and mixers, and associated parts.	Sole Original Equipment Manufacturer authorized service provider for Flyght branded submersible pumps and mixers.	Sole authorized distributor of Flyght branded submersible pumps and mixers, and associated parts.	$300,000.00	$330,861.00	$293,238.49	$452,639.62	$302,944.69	
YSI	x			Original Equipment Manufacturer for regulatory analyzers, monitoring and control devices.			$ -	$ -	$ -	$ -	$ -	
							$3,470,000	2,596,979	1,844,815	3,962,370	2,477,363	

Vendor Name	Manufacturer	Service	Distributor	Goods	Services	Distributor	Estimated Spend 2021	Annual Spent 2020	Annual Spent 2019	Annual Spent 2018	Annual Spent 2017	Comments
4iMAC INC		x			Technical support for the modification and upgrade of the existing INFOR EAM Computerized Maintenance System.		$ 70,000.00	$ 30,138.00	$ 69,199.20	$ 23,078.50	$ 33,249.75	
AECOM Canada Ltd		x			Host and responsible vendor for the National Water Wastewater Benchmarking Initiative (NWWBI) across Canada.		$ 55,000.00	$ 50,773.00	$ 49,895.00	$ 49,895.00	$ 37,421.00	
DCM - Data Communications Management	x			Mailable toilet leak dye strip manufacturer, used for high water billing notifications. Proprietary product from DCM.			$ 17,000.00	$ 9,800.00				
Devine & Associates Limited			x			Equipment and services to maintain existing water distribution system anti-stagnation valve (3/4" or 1" programmable timer valve).	$ 50,000.00	$ 265,838.00	$174,531.74	$279,231.58	$ 88,730.50	
E.H. Wachs	x	x	x	Supply of Original Equipment Manufacturer spare parts, equipment and services for ERV-750 Valve Exerciser - Automated Valve Operator, VMT2 Valve and Hydrant Maintenance Trailer, WACHS Vital (valve data collection) software system, WACHS Hydrant Cutter, and guillotine saw.	Supply of Original Equipment Manufacturer spare parts, equipment and services for ERV-750 Valve Exerciser - Automated Valve Operator, VMT2 Valve and Hydrant Maintenance Trailer, WACHS Vital (valve data collection) software system, WACHS Hydrant Cutter, and guillotine saw.	Supply of Original Equipment Manufacturer spare parts, equipment and services for ERV-750 Valve Exerciser - Automated Valve Operator, VMT2 Valve and Hydrant Maintenance Trailer, WACHS Vital (valve data collection) software system, WACHS Hydrant Cutter, and guillotine saw.	$ 120,000.00	$ 86,681.00	$ 57,421.44	$ 30,000.00	$ 29,749.58	
Evans Utility & Municipal Products	x	x	x	Supply of Original Equipment Manufacturer spare parts, equipment and services for meter spacers of various sizes and red hed reducers, parts to assemble or create Fire Hydrant Meters (i.e. 2.5" Female Swivel by 3" MIPT Adapter), fabricated stands for Fire Hydrant Meters.	Supply of Original Equipment Manufacturer spare parts, equipment and services for meter spacers of various sizes and red hed reducers, parts to assemble or create Fire Hydrant Meters (i.e. 2.5" Female Swivel by 3" MIPT Adapter), fabricated stands for Fire Hydrant Meters.	Supply of Original Equipment Manufacturer spare parts, equipment and services for meter spacers of various sizes and red hed reducers, parts to assemble or create Fire Hydrant Meters (i.e. 2.5" Female Swivel by 3" MIPT Adapter), fabricated stands for Fire Hydrant Meters.	$ 35,000.00	$ 33,233.00	$ 22,088.85	$ 15,573.50	$ 4,847.00	
Flowpoint Environmental Systems LP		x			Maintenance and upgrades to software which supports the City's Bulk Water Filling and Hauled Waste Stations to allow customers to create an account online and make purchases.		$ 30,000.00	$ 18,901.00		$ 12,575.00		
Industrial Scientific Corporation	x	x	x	Supply of Original Equipment Manufacturer spare parts, equipment and services to maintain existing Ventis gas detectors and accessories used by Hamilton Water.	Supply of Original Equipment Manufacturer spare parts, equipment and services to maintain existing Ventis gas detectors and accessories used by Hamilton Water.	Supply of Original Equipment Manufacturer spare parts, equipment and services to maintain existing Ventis gas detectors and accessories used by Hamilton Water.	$ 60,000.00	$ 56,179.00	$ 57,840.91	$ 52,155.72		
Infor Canada Ltd.	x		x	Licensing components, software vendors and support for the existing INFOR EAM Computerized Maintenance System.		Licensing components, software vendors and support for the existing INFOR EAM Computerized Maintenance System.	$ 500,000.00	$ 480,054.00	$427,642.60	$ 43,211.00		
Kronos Inc.	x	x	x	Supply of Original Equipment Manufacturer spare parts, equipment and support services to maintain existing Kronos In Touch 9000 terminals.	Original Equipment Manufacturer spare parts, equipment and support services to maintain existing Kronos In Touch 9000 terminals.	Original Equipment Manufacturer spare parts, equipment and support services to maintain existing Kronos In Touch 9000 terminals.	$ 40,000.00	$ 46,632.00	$ 25,116.98	$ 10,000.00	$ 30,000.00	
Lannick Contract Solutions Inc.		x			Staffing agency support for GIS and Technical development systems.		$ 60,000.00	$ 41,235.00				
Pipeline Repair Services Inc.		x			Specialized pipeline repair services (6" to 48" linestop installations), for the City's water distribution system.		$ 50,000.00			$ 56,500.00	$ 42,120.00	
Van Essen Instruments - Canada	x	x	x	Supply of Original Equipment Manufacturer spare parts, equipment and support services to maintain existing water level and water quality dataloggers, including communication devices and cables.	Original Equipment Manufacturer spare parts, equipment and support services to maintain existing water level and water quality dataloggers, including communication devices and cables.	Original Equipment Manufacturer spare parts, equipment and support services to maintain existing water level and water quality dataloggers, including communication devices and cables.	$ 10,000.00		$ 24,355.50	$ 30,000.00	$ 11,050.11	
Voicenet Interactive Inc		x			Provision of mass outbound calling in the event of adverse water quality incidents and other water distribution and wastewater collection system notifications (e.g. Frozen Water Services, Backwater Valve Maintenance, Water Use Restrictions, etc.).		$ 20,000.00	$ 19,479.00		$ 10,000.00		
							$1,117,000.00	$ 1,138,943.00	$908,092.22	$612,220.30	$277,167.94	

CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Engineering Services Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	August 11, 2021
SUBJECT/REPORT NO:	Cost Recovery Using Funding Methodology for Municipal Infrastructure Extensions - Rymal Road from Approximately 200m East of Second Road West to Upper Centennial Parkway (PW21046) (Ward 9)
WARD(S) AFFECTED:	Ward 9
PREPARED BY:	Roumiana Nikolova (905) 546-2424 Ext. 2817
SUBMITTED BY: **SIGNATURE:**	Gord McGuire Director, Engineering Services Public Works Department 

RECOMMENDATION

(a) That the General Manager of Finance and Corporate Services be authorized and directed to prepare a cost recovery by-law in accordance with the *Municipal Act, 2001* the *City of Hamilton Act, 1999* and the City's Funding Methodology for Municipal Infrastructure Extensions Policy to recover the local portion of infrastructure extension construction costs to be incurred, in addition to permit fees, against the benefiting properties identified in Appendix "B" attached to Report PW21046 with the following terms:

(i) The charge to each property, as identified in Appendix "B" attached to Report PW21046; the current flat fee as of the date of payment/connection in accordance with the City's annual user fee by-law;

(ii) The charge shall be due at the earlier of the time of connection (building permit), as a condition of severance, or may be paid at any time;

(iii) At time of connection, the benefitting owners may elect to spread the payment over 15 years by placing the charge on tax roll; interest shall apply based on the City's then current 15 year borrowing rate;

(iv) Any unpaid amounts may be added to the property tax roll and collected in the same manner as municipal taxes.

EXECUTIVE SUMMARY

This report seeks authorization for the preparation of a cost recovery by-law, in accordance with the Funding Methodology for Municipal Infrastructure Extensions Policy, for the estimated cost contained in Appendix "B" attached to Report PW21046 of a new municipal sanitary sewer on lands known as Rymal Road East, from approx. 200m East of Second Road to Upper Centennial Pkwy in the City of Hamilton, (Appendix "A" attached to Report PW21046).

This Funding Methodology for Municipal Infrastructure Extensions project (see Appendix "A" attached to Report PW21046) consists of sanitary sewer construction on Rymal Road from 200m East of Second Road West to Upper Centennial Parkway, including sanitary laterals (from the main sewer to the property line). Cost recovery from benefitting property owners and as outlined in Appendix "B" attached to Report PW21046, will be collected by the City prior to issuance of a sewer permit. The monies collected will be placed in the appropriate City Development Charges account.

The property located at 2133 Rymal Rd is excluded from the cost recovery since under its current designation and zoning it is not developable.

The sanitary sewers will be constructed in conjunction with Contract Number: C15-50-19 (HSW) – Rymal Road East – Fletcher Road to Upper Centennial Pkwy that involves road reconstruction and widening, sidewalk, sanitary and storm sewer construction, traffic signals and street lighting installation.

Alternatives for Consideration – Not Applicable

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: The estimated cost of $302,573.97 for this report referred to in Appendix "B" attached to Report PW21046 will be collected from benefitting property owners upon connection and prior to issuance of a sewer connection permit, as per the "Funding Methodology for Municipal Infrastructure Extensions Policy" approved by Council.

Staffing: None

Legal: None

HISTORICAL BACKGROUND

As part of project Contract Number: C15-50-19 (HSW) Rymal Road East - Fletcher Road to Upper Centennial Pkwy, sanitary sewers will be constructed to accommodate growth and future development along Rymal Road (see Appendix "A" attached to Report PW21046).

Existing residential and commercial properties within the project limits will have the opportunity to connect to the sewer via private sewer laterals which will be installed as part of the project. Installing the private sewer laterals as part of the project will eliminate future road cuts to the newly constructed road. These municipal service extensions will be fully funded from Development Charges where adjacent owners will be required to pay the applicable flat fee and sewer laterals cost at the time of permit issuance for the connection to the sanitary sewers.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

This project is in compliance with the "Funding Methodology for Municipal Infrastructure Extensions Review and Update" (TOE02005b/FCS02026b/PED07248) approved by Council.

RELEVANT CONSULTATION

In spring of 2019 notices were sent the to property owners to inform them of the future Rymal Road East reconstruction project. The notices included information regarding the cost recovery for the planned sanitary sewer and service laterals that would be provided to their properties. Benefitting property owners provided information on the preferred location of the service lateral to their property.

Consultation with City staff was conducted to prepare this report.

Corporate Services - Legal and Risk Management Services

- Contacted for special service agreements.
- Municipal Act Consultation for the assessment of the cost recovery.

Corporate Services – Budgets and Fiscal Policy; Financial Planning, Administration and Policy

- Consultation on the preparation of the cost recovery charges as per the Recommendation in this report.

Planning and Economic Development - Infrastructure Planning
- Contacted for Special Service Agreements
- Land Development

Public Works:
- Asset Management - Capital budget

ANALYSIS AND RATIONALE FOR RECOMMENDATION

Sanitary sewer and lateral services will be installed on Rymal Road East as part of the reconstruction of Rymal Road from 200m East of Second Road to Upper Centennial Parkway. The approval of the recommendations contained in this report will enable the City to recover a portion of cost associated with the construction of the sanitary sewer from the benefitting property owners for this project prior to issuance of a permit to connect in accordance with the Funding Methodology for Municipal Infrastructure Extensions Policy.

In accordance with the Funding Methodology for Municipal Infrastructure Extensions Review and Update (TOE02005b/FCS02026b/PED07248), where the cost to construct the mainline sanitary sewer is being funded from Development Charges revenues the applicable User Flat Rate Fees will be implemented.

ALTERNATIVES FOR CONSIDERATION

Not Applicable

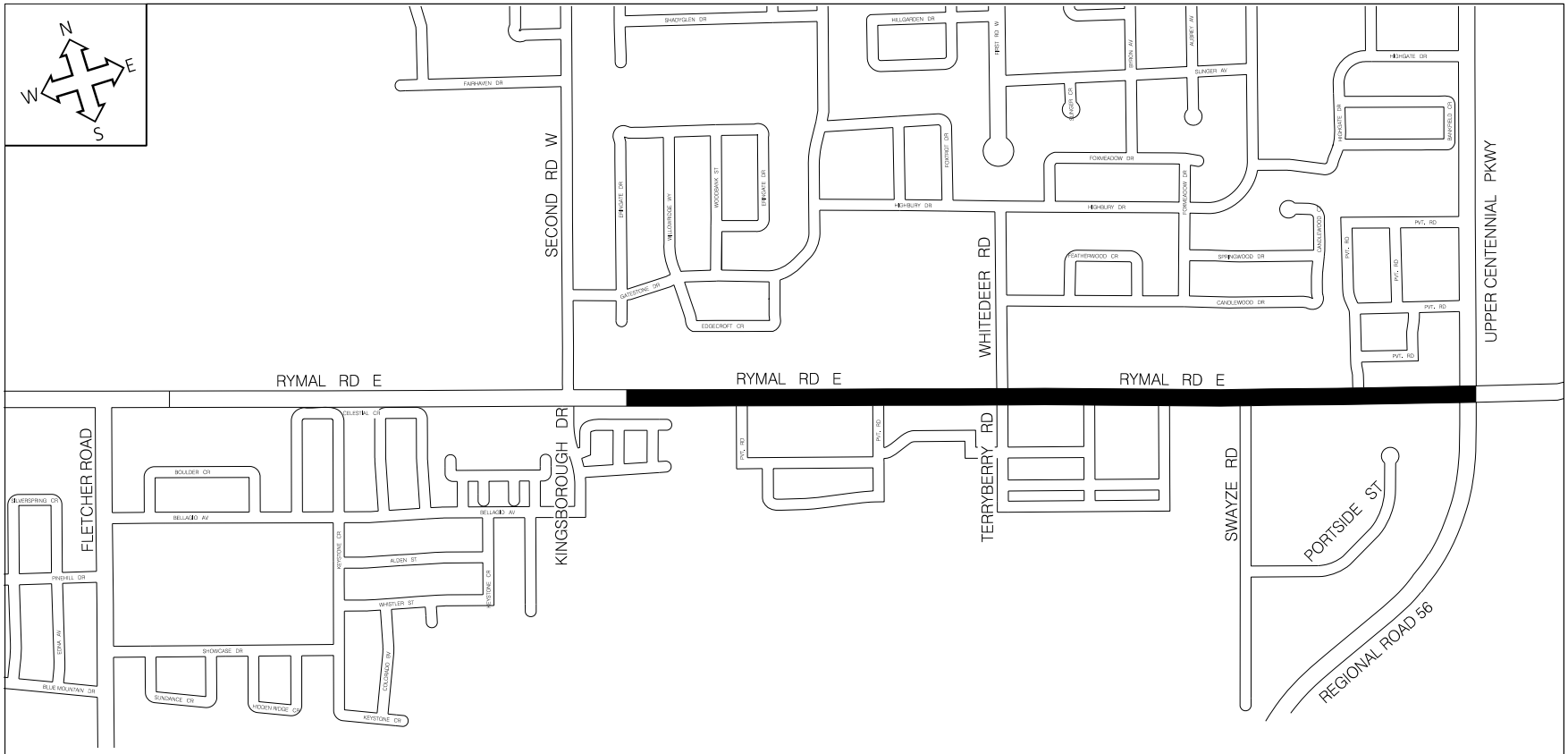
ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

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

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 PW21046: Location Map – Rymal Road East
Appendix “B” to Report PW21046: Municipal Act Service Extension Cost



Proposed Sanitary Sewer Construction

City of Hamilton (Community of Stoney Creek)
Ward 9

Rymal Rd E - Approx. 200m East of Second Rd to Upper Centennial Pkwy

Sanitary Sewer Construction

CITY OF HAMILTON
Public Works Department
General Manager, Dan McKinnon

DATE: February, 2020 CONTRACT No. C15-50-19 (HSW)

Rymal Road East - Approx. 200m East of Second Rd to Upper Centennial Pkwy
Municipal Act - Development Charges

Service Cost - Sanitary Sewer Service Extension Flat Fee and One Sanitary Lateral

Roll Number	Propert Address	Service Extension Sanitary Sewer Flat Fee 2020-2021	Sanitary Laterals (Estimate)	Estimated Cost Per Property
251800385032000	2099 Rymal Road East	$7,945.00	$4,745.60	$12,690.60
251800385031600	2105 Rymal Road East	$7,945.00	$4,745.60	$12,690.60
251800385031500	2109 Rymal Road East	$7,945.00	$4,745.60	$12,690.60
251800385031400	2113 Rymal Road East	$7,945.00	$4,745.60	$12,690.60
251800385031200	#2119 Rymal Road East	$7,945.00	$5,220.16	$13,165.16
251800385031000	2129 Rymal Road East	$7,945.00	$4,745.60	$12,690.60
251800385030800	2133 Rymal Road East	Excluded from cost recovery. Per current designation and zoning it is not developable.		
251800385030600	2149 Rymal Road East	$7,945.00	$4,745.60	$12,690.60
251800385030400	2153 Rymal Road East	$7,945.00		$7,945.00
251800385030300	2155 Rymal Road East	$7,945.00		$7,945.00
251800385030200	2157 Rymal Road East	$7,945.00	$7,612.80	$15,557.80
251800385030000	0 Rymal Road East	$7,945.00		$7,945.00
251800385001800	2227 Rymal Road East	$7,945.00	$4,745.60	$12,690.60
251800385001000	2237 - 2241 Rymal Road East	$7,945.00	$4,745.60	$12,690.60
251800385000800	2247 Rymal Road East	$7,945.00	$4,745.60	$12,690.60
251800385000600	2251 Rymal Road East	$7,945.00	$2,966.00	$10,911.00
251800385000590	2257 Rymal Road East	$7,945.00	$12,614.50	$20,559.50
251800385000400	2273 - 2297 Rymal Road East	$7,945.00		$7,945.00
251800385000100	# 21 Upper Centennial Pkwy	$7,945.00	$12,614.50	$20,559.50
251890113006400	2200 Rymal Road East	$7,945.00	$7,116.20	$15,061.20

251890113006100	2250 Rymal Road East	$7,945.00	$21,973.11	$29,918.11
251890113006095	2260 Rymal Road East	$7,945.00	$22,901.31	$30,846.31
			TOTAL:	**$302,573.97**

NOTE:
1) If the property owner chooses to connect to the sewer after December 31, 2021 then the Service Extension Flat Fee shall be the rate in the year in which the property owner applies for a Permit to connect.
2) The estimated cost for sanitary laterals will be adjusted to reflect as constructed cost.

CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Environmental Services Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	August 11, 2021
SUBJECT/REPORT NO:	Private Tree Giveaway (PW21044) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Sam Scarlett (905) 546-2424 Ext. 3919
SUBMITTED BY: **SIGNATURE:**	Craig Murdoch Director, Environmental Services Public Works Department 

RECOMMENDATION

(a) That staff be directed to plan and execute a City Wide Private Tree Giveaway Program for the remainder of 2021 and on an annual basis from 2022 and beyond, subject to the approval of the following:

(i) That $15,000 be allocated from the 2021 Forestry tax operating budget to fund the 2021 Fall Private Tree Giveaway Program; and,

(ii) That the 2022 Private Tree Giveaway Program annual operating budget request of $45,000 be referred to the 2022 tax operating budget process for consideration.

EXECUTIVE SUMMARY

The City of Hamilton Corporate Climate Change Task Force and the draft Urban Forest Strategy (UFS) have both identified tree planting as a key action to aid in the efforts of offsetting the City of Hamilton's (City) carbon footprint, improving air quality and reducing surface temperatures, amongst many other environmental and social benefits. The current urban tree canopy coverage for the City is 21.2%, with a draft future target of 30%. Significant increases in tree planting over the next several years is critical in meeting or exceeding the 30% tree canopy coverage target.

In 2021, successful Ward specific Private Tree Giveaways of native tree species were executed by staff for Wards 2, 3, 5, 6, 7, and 8. Due to COVID–19 restrictions, interested residents were required to register for the species of tree they desired, including their address and contact information, and the trees were delivered to their homes. Overall, 756 trees were requested and delivered. This Program was positively received by residents of participating Wards and significant interest was received from other Wards.

This Report recommends the Program be implemented City Wide as a core service. This will give the City an opportunity to increase the City's tree canopy on private property by approximately 3,000 trees per year. The Program will also allow for wider engagement amongst the City's residents to promote the benefits of a healthy and robust tree canopy.

Alternatives for Consideration – See page 4

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: That the estimated costs to implement a Fall 2021 Private Tree Giveaway Program of $15,000 be funded through the existing 2021 Forestry operating budget. Approval to establish a permanent City Wide Private Tree Giveaway Program at an estimated annual cost of $45,000 per year be referred to the 2022 tax operating budget process. All ownership and future maintenance of the trees given away through the Private Tree Giveaway Program are the responsibility of the homeowner.

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

In 2020, staff were requested by the Ward 5 Councillor to implement a Private Tree Giveaway Program for Ward 5. Staff created a Program for the promotion and distribution of trees to residents. Unexpectedly, the restrictions and challenges faced by COVID-19 caused this to be delayed until 2021.

Initial plans for the 2020 Private Tree Giveaways were based on similar Programs offered through other Divisions in Public Works, such as the compost and rain barrel giveaways. Due to the closure of various facilities and public gatherings being restricted, staff created a new Program in 2021 that would comply with all COVID-19 restrictions.

In Q4 of 2020 and Q1 of 2021, motions for Private Tree Giveaways were also passed for Wards 2, 3, 6, 7, and 8. In Q2 of 2021, staff worked with various Ward Councillor offices to complete advertising and marketing for the Ward specific Private Tree Giveaways.

Staff selected 4 native tree species that would provide a range of options to best suit the various locations and yard sizes in the City. Tree planting and care information material was created and attached to each tree for reference. A mulch mat was also provided to promote improved health and of survival of the newly planted trees by assisting in water retention and suppression of weeds. Staff then set delivery dates based on the addresses for each Ward, with staff contacting each applicant to notify them of the delivery date and process. Due to COVID-19 restrictions, staff completed a contactless delivery.

A total of 756 residents requested trees through the online portal created for participating Wards. Additional requests were received from residents in other Wards who did not have a Ward specific Private Tree Giveaway Program in place through the Customer Contact Centre and City of Hamilton Website. As a result of these additional requests, staff are recommending that a permanent Program be created.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

Goal Six, Protect and Restore the Natural Environment, of the Corporate Climate Change Task Force, Appendix "A" to Report CMO19008/HSC19073, states an area of focus is to adopt the Urban Forest Strategy.

Theme Four, Grow, of the City of Hamilton Draft Urban Forest Strategy, “Appendix “B” to Report PED20173, time (1) states a key activity is to “Increase the level of tree planting and/or natural forest regeneration in the City over the next five years.”

RELEVANT CONSULTATION

This report was prepared in consultation with staff from the Corporate Services Department (Financial Planning, Administration and Policy Division) and the Planning and Economic Development Department (Community Planning, Development Planning, Heritage and Design).

ANALYSIS AND RATIONALE FOR RECOMMENDATION

Through the draft UFS, as well as the City’s Corporate Climate Change Task Force, tree planting is identified as an effective action for combatting the climate emergency currently facing the City. The draft UFS also noted that throughout the City’s urban area, 58% of the existing tree canopy is located on private property and 42% is currently located on public property (e.g. public road allowance, parks, City owned cemeteries

and naturalized areas). In order to reach the target of 30% canopy coverage from the current 21.2%, extensive tree planting will be required on private property, as well as on public land.

Potential tree planting locations on public land, especially in the higher population dense areas, is limited due to several reasons. Examples of these include overhead utility conflicts, limited grass boulevard area, high proportions of off-street parking spaces and small City owned road allowances. This restricts the ability of the Forestry Section to establish large numbers of new trees on public property in these areas. Supplying trees to residents to plant on private property will allow for greater planting and in time, greater canopy coverage that may not be achieved by solely planting trees on public property.

If approved, 1,000 trees will be made available and be distributed to residents City Wide in the Fall of 2021. For 2022 and beyond, an annual total of 3,000 trees will be available for both Spring and Fall planting Programs, as these are the best times to plant new trees and ensure survival. Moving forward, and in anticipation that COVID-19 restrictions will be eased, trees will be available to be collected from Giveaway Events held throughout the City, rather than delivered, as happened in Spring of 2021. The Program will limit residents to 1 tree per address, per year.

Through the proposed City Wide Program, staff will advertise and market through print media outlets, social media and the City's website. Additional outreach will be undertaken with neighbourhood associations and local environmental organisations to promote the Program.

On an annual basis, a random sample of residents who participated in the Program will be contacted to report back on survival of the City supplied tree approximately 12 months after the tree is received. This will provide valuable data on tree survival and allow for future Program improvements. Staff will report annually on the success of the Program in the annual Tree Planting Communication Update to Council.

ALTERNATIVES FOR CONSIDERATION

That the City Wide Private Tree Giveaway Program be offered as a temporary project for the remainder of 2021 and not proceed forward to future years.

Financial: The estimated program cost of $15,000 for the remainder of 2021 will be funded from the existing Forestry operating budget.

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.

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

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.

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

APPENDICES AND SCHEDULES ATTACHED

N/A

11.1

CITY OF HAMILTON

M O T I O N

Public Works Committee: August 11, 2021

MOVED BY COUNCILLOR T. JACKSON...……..……..……...

SECONDED BY COUNCILLOR ……..……..

Installation of Traffic Calming Measures at Various Locations throughout Ward 6 (REVISED)

WHEREAS, the residents of Beacon Avenue have submitted a petition with 46 names for the installation of speed cushions on Beacon Avenue to address roadway safety concerns as a result of speeding, cut-through traffic;

WHEREAS, the residents of Moxley Drive have submitted a petition with 45 names for the installation of speed cushions on Moxley Drive between Beacon Avenue and Mohawk Road East to address roadway safety concerns as a result of speeding, cut-through traffic;

WHEREAS, the residents of Rapallo Drive, that were part of a neighbourhood petition of 67 names, are requesting the installation of speed cushions along Rapallo Drive, to address roadway safety concerns as a result of speeding and cut through traffic;

WHEREAS, the residents of East 45th Street have submitted a petition containing 50 signatures for the installation of additional speed cushions on East 45th Street, between 10th Avenue and Fennell Avenue East, to address roadway safety concerns as a result of speeding, cut-through traffic;

WHEREAS, the residents of Organ Crescent have submitted a petition containing 45 signatures for the installation of speed cushions on Organ Crescent, to address roadway safety concerns as a result of speeding, cut-through traffic;

WHEREAS, the residents of Eaglewood Drive have submitted a petition containing 75 signatures for the installation of speed cushions on Eaglewood Drive, between Eva Street and Sinena Avenue, to address roadway safety concerns as a result of speeding, cut-through traffic; and,

WHEREAS, the residents of Fernwood Crescent have submitted a petition containing 31 signatures for the installation of speed cushions on Fernwood Crescent, between 9th

Avenue and Castlefield Drive, to address roadway safety concerns as a result of speeding, cut-through traffic;

THEREFORE, BE IT RESOLVED:

(a) That Transportation Operations and Maintenance staff be authorized and directed to install traffic calming measures on the following roadways as part of the 2021 Traffic Calming program (Fall Application):

(i) Beacon Avenue, Hamilton (2 speed cushions);

(ii) Moxley Drive, from Beacon Avenue and Mohawk Road East, Hamilton (1 speed cushion);

(iii) Rapallo Avenue, Hamilton (2 speed cushions);

(iv) East 45th Street, from 10th Avenue and Fennell Avenue East, Hamilton (5 speed cushions);

(v) Organ Crescent, Hamilton (4 speed cushions);

(vi) Eaglewood Drive, from Eva Street and Sinena Avenue, Hamilton (3 speed cushions);

(vii) Fernwood Crescent, from 9th Avenue and Castlefield Drive, Hamilton (2 speed cushions);

(b) That all costs associated with the installation of traffic calming measures at the identified locations throughout Ward 6 be funded from the Ward 6 Minor Maintenance Account (4031911606) at a total cost not to exceed $133,000 (including contingency); 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.

11.2

CITY OF HAMILTON

M O T I O N

Public Works Committee: August 11, 2021

MOVED BY COUNCILLOR T. JACKSON...……..……..……...

SECONDED BY COUNCILLOR ……..……..

Installation of Traffic Calming Measures on Bellagio Avenue, Showcase Drive, Keystone Crescent, Fletcher Road and Gatestone Drive to Address Safety Concerns Around Area Elementary Schools (Ward 9)

WHEREAS, the City of Hamilton is committed to the safety of all road users and is a leader in Vision Zero initiatives; and,

WHEREAS, the Ward 9 office has continued to receive complaints and concerns related to the safety of elementary students accessing schools in these areas;

THEREFORE, BE IT RESOLVED:

(a) That Transportation Operations and Maintenance staff be authorized and directed to install traffic calming measures on the following roadways as part of the 2021 Traffic Calming program (fall application), at a cost not to exceed $60,000, to be funded from the Ward 9 Minor Maintenance account (4031911609):

(i) Gatestone Drive, from Foxtrot Drive to Shadyglen Drive, Hamilton (2 speed cushions);

(ii) Bellagio Avenue, from Fletcher Road to Keystone Crescent, Hamilton (3 speed cushions);

(iii) Keystone Crescent, from Bellagio Avenue to Showcase Drive, Hamilton (2 speed cushion);

(iv) Showcase Drive, from Keystone Crescent to Fletcher Road, Hamilton (2 speed cushions);

(v) Fletcher Road at Pinehill Drive, Hamilton, northwest corner, corner radius reduction;

(b) 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.

11.3

CITY OF HAMILTON

M O T I O N

Public Works Committee: August 11, 2021

MOVED BY COUNCILLOR J.P. DANKO.....……..……..……...

SECONDED BY COUNCILLOR ……..……..

Additional Funding for the Study of Design Improvements to Southam Park, Hamilton (Ward 8)

WHEREAS, parks play an important role in the creation of livable cities, and the amenities in parks animate the spaces for use by the public;

WHEREAS, Southam Park, located at 480 Upper James Street, was approved as a project through the 2020 capital budget process to design improvements to the park; and,

WHEREAS, additional funds are required to complete studies and detailed design;

THEREFORE, BE IT RESOLVED:

(a) That $51,000 of funding be allocated from the Ward 8 Special Capital Re-investment Reserve Fund #108058 to Project ID 4402056008, to complete the studies and detailed design of Southam Park; and,

(b) 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.

11.4

CITY OF HAMILTON

M O T I O N

Public Works Committee: August 11, 2021

MOVED BY COUNCILLOR N. NANN…..……..……..……...

SECONDED BY COUNCILLOR ……..……..

Installation of Traffic Calming Measures at Various Locations throughout Ward 1

WHEREAS, the City of Hamilton has adopted Vision Zero approach which considers human error as part of the road way safety equation,

WHEREAS, roads adjacent to parks and schools frequently see the greatest number of young pedestrians and cyclists at risk by speeding motorists; and,

WHEREAS, Ward 1 residents have repeatedly advocated for the installation of speed cushions on various roadways throughout their neighbourhoods to address roadway safety concerns as a result of speeding and cut-through traffic;

THEREFORE, BE IT RESOLVED:

(a) That Transportation Operations and Maintenance staff be authorized and directed to install traffic calming measures on the following roadways as part of the 2021 Traffic Calming program:

(i) Homewood Avenue from Dundurn Street South to MacDonald Avenue, Hamilton (1 speed cushion);

(ii) Stanley Avenue from Dundurn Street South to MacDonald Avenue, Hamilton (1 speed cushion);

(iii) Charlton Avenue West from Locke Street South to Dundurn Street South, Hamilton (2 speed cushions);

(iv) Beddoe Drive from Studholme Road to southerly end, Hamilton (3 speed cushions);

(v) Dromore Crescent from Marion Avenue North to Oak Knoll Drive, Hamilton (1 speed cushion);

(vi) Marion Avenue North from Haddon Avenue North to Dromore Crescent, Hamilton (1 speed cushion);

(vii) Parkside Drive from Devon Place to Glen Road, Hamilton (1 speed cushion);

(viii) Glen Road from Parkside Drive to Kipling Road, Hamilton (1 speed cushion);

(ix) Strathcona Avenue North from York Boulevard to Florence Street, Hamilton (1 speed cushion);

(x) Chatham Street from Locke Street South to Dundurn Street South, Hamilton (2 speed cushions);

(b) That all costs associated with the installation of traffic calming measures at the identified locations throughout Ward 1 be funded from the Ward 1 Reserve Account (108051) at a total cost not to exceed $100,000 (including contingency); 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.

11.5

CITY OF HAMILTON

M O T I O N

Public Works Committee: August 11, 2021

MOVED BY COUNCILLOR N. NANN…….....……..……...

SECONDED BY COUNCILLOR ……..……..

Ward 1 Park Improvements

WHEREAS, Victoria Park (500 King Street West, Hamilton) is a diverse community park in Ward 1 with recreation amenities that promote healthy activity opportunities for the community;

WHEREAS, one of the two multi-use courts within Victoria Park does not include the basketball and hockey infrastructure that is now standard within new multi-use court amenities;

WHEREAS, the addition of this infrastructure is desirable to increasing recreation opportunities for residents at Victoria Park;

WHEREAS, the junior play structure located within Mapleside Park (12 Spruceside Avenue, Hamilton) has reached end of life;

WHEREAS, the asphalt pathways at both Mapleside Park and Radial Park (12 Spruceside Avenue, Hamilton) require replacement,

WHEREAS, drainage improvements can be effectively added to Mapleside Park during the play structure and pathway improvements to improve park conditions;

WHEREAS, these community amenities at both Mapleside Park and Radial Park are valuable recreation opportunities for children, youth and families within the Kirkendall North and Kirkendall South neighbourhoods;

WHEREAS, park pathways offer a valuable active transportation link to pedestrians and bike users in Ward 1 and beyond; and,

WHEREAS, the asphalt pathways at Alexander Park (201 Whitney Avenue, Hamilton), Churchill Park (255 Glen Road, Hamilton) and Jackson Playground (439 Jackson Street West, Hamilton) require replacement;

THEREFORE, BE IT RESOLVED:

(a) That $35,000 of funding be allocated from the Ward 1 Special Capital Re-Investment Discretionary Fund (#3302009100), to improve the existing court within Victoria Park, Hamilton, with basketball posts/nets and fencing improvements to include built in hockey nets, be approved;

(b) That the replacement of the existing junior play structure, pathway replacements and drainage improvements at Radial Park and Spruceside Park, Hamilton, at an approximate cost of $146,000, to be funded from Ward 1 Special Capital Re-Investment Reserve Fund (#108051), be approved;

(c) That the replacement of portions of asphalt pathways at Alexander Park, Churchill Park and Jackson Playground, Hamilton, at an approximate cost of $90,000, to be funded from the Ward 1 Special Capital Re-Investment Reserve Fund (#108051), be approved; 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.