City of Hamilton
PUBLIC WORKS COMMITTEE
AGENDA

Meeting #:	21-006
Date:	May 3, 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. April 19, 2021 — 5

5. COMMUNICATIONS

6. DELEGATION REQUESTS

7. CONSENT ITEMS

13.1.a.a. Wastewater Treatment Plant Bypass and Combined Sewer Overflow Reporting

Addressed as Item 7.1 on today's agenda - Report PW19091(b)
Item on OBL: AAM

13.1.b. Items Requiring a New Due Date:

13.1.b.a. COVID-19 Recovery Phase Mobility Plan

Item on OBL: ABE
Current Due Date: May 3, 2021
Proposed New Due Date: May 31, 2021

13.1.b.b. Stormwater Gap Evaluation

Item on OBL: ABM
Current Due Date: May 3, 2021
Proposed New Due Date: May 31, 2021

13.1.b.c. Road Safety Review and Appropriate Measures at the York Road and Newman Road Intersection

Item on OBL: AAE
Current Due Date: May 17, 2021
Proposed New Due Date: May 31, 2021

14. PRIVATE AND CONFIDENTIAL

14.1. Closed Session Minutes - April 19, 2021

Pursuant to Section 9.1, Sub-sections (e), (f) and (k) of the City's Procedural By-law 21-021, and Section 239(2), Sub-sections (e), (f) and (k) of the *Ontario Municipal Act, 2001*, as amended, as the subject matter pertains to litigation or potential litigation, including matters before administrative tribunals, affecting the municipality or local board; the receiving of advice that is subject to solicitor-client privilege, including communications necessary for that purpose; 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.

14.2. Management and Processing of the City of Hamilton's Green Cart Material (LS21011(a)/PW21024(a)) (City Wide)

Pursuant to Section 9.1, Sub-sections (e), (f) and (k) of the City's Procedural By-law 21-021, and Section 239(2), Sub-sections (e), (f) and (k) of the *Ontario Municipal Act, 2001*, as amended, as the subject matter pertains to litigation or potential litigation, including matters before administrative tribunals, affecting the municipality or local board; the receiving of advice that is subject to solicitor-client privilege, including communications necessary for that purpose; 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 21-005

1:30 p.m.
Monday, April 19, 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. Consent Items (Item 7)

(Nann/Ferguson)

(a) That Consent Items 7.1 to 7.4 be received, as presented:

(i) Biosolids Facility Update and Product Information (PW11098(g)) (City Wide) (Item 7.1)

(ii) Clean and Green Hamilton Strategy 2020 Year-End Update (PW21016) (City Wide) (Item 7.2)

(iii) Emerald Ash Borer Management Plan (PW21023) (City Wide) (Item 7.3)

(iv) Winter Control Program (PW21018) (City Wide) (Item 7.4)

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. Sidewalk Snow Clearing Update (PW19022(c)) (City Wide) (Item 8.1)

(Collins/Merulla)
That Report PW19022(c), respecting a Sidewalk Snow Clearing 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

3. Confederation Beach Park - Wild Waterworks 2021 Season (PW21020) (City Wide) (Item 8.2)

(Collins/Ferguson)
(a) That the City of Hamilton accept the recommendation from the Hamilton Conservation Authority, operator of Wild Waterworks at Confederation Beach Park, for Wild Waterworks, which was endorsed by the Park Management Review Team, to remain closed for the 2021 Operating Season due to the COVID-19 pandemic;

(b) That the City of Hamilton provide an estimated $300,000 in financial support for the Wild Waterworks closure in 2021 due to the COVID-19 pandemic, and that it be charged to the Public Works Environmental Services budget and be funded through any federal/provincial COVID-19 amounts received; and,

(c) That the General Manager of Public Works be granted the authority to execute, on behalf of the City of Hamilton, any revisions to the Management Agreement with the HCA and any related or ancillary

documents necessary to implement Recommendation (a) each in a form satisfactory to the City Solicitor.

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

YES - Ward 2 Councillor Jason Farr
YES - 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

4. Proposed Permanent Closure and Sale of a Portion of Public Unassumed Alleyway Abutting 63 New Street, Hamilton (PW21021) (Ward 1) (Item 9.2)

(Pearson/Jackson)

(a) That the application of the owner of 63 New Street, Hamilton, to permanently close and purchase a portion of the public unassumed alleyway, abutting the south side of 63 New Street, Hamilton, running east/west from the westerly limit of the alleyway to the east property limit of 63 New Street, Hamilton (“Subject Lands”), as shown on Appendix "A", attached to Report PW21021, 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 the City Solicitor considers 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 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 owner of 63 New Street, Hamilton, as described in Report PW21021, 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 owner of 63 New Street, Hamilton, 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-law permanently closing and selling the alleyway in the proper land registry office; and,

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

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

5. Valley Inn Bridge Municipal Class Environmental Assessment (PW21022) (Ward 1) (Item 10.1)

(Pearson/Danko)

(a) That the General Manager, Public Works, be authorized and directed to file the Valley Inn Bridge Schedule B Municipal Class Environmental Assessment Project File Report (PFR) with the Municipal Clerk for a minimum thirty (30) day public review period;

(b) That upon completion of the minimum thirty (30) day public review period, the General Manager, Public Works, be authorized and directed to proceed with the implementation of the preferred alternative, to be funded through Unallocated Capital Levy Reserve (108020) and to be repaid once the donation is received from the McNally Foundation with construction scheduled for 2021; and,

(c) That the name of the bridge be changed from Valley Inn Road Bridge to Valley Inn Bridge, to reflect the existing active transportation use of the bridge.

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

6. Installation of Speed Cushions on Cranbrook Drive, Hamilton (Ward 14) (Item 11.1)

(Jackson/Ferguson)

WHEREAS, residents in the Gilkson neighbourhood have reported an extensive amount of speeding complaints regarding Cranbrook Dr to the Ward 14 office; and,

WHEREAS the residents who live on Cranbrook Drive are requesting the installation of traffic calming measures along Cranbrook Drive to address roadway safety concerns related to school children of R.A. Riddell School;

THEREFORE, BE IT RESOLVED:

(a) That staff be authorized and directed to install two speed cushions on Cranbrook Drive, between Greendale Drive and Gemini Drive, at a cost not to exceed $14,400, to be funded from the Ward 14 Capital Reinvestment Discretionary Account; 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 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

7. Ward 1 Contribution to the Trees Please Program of Environment Hamilton and the Hamilton Naturalists' Club (Item 11.2)

(Danko/Nann)
WHEREAS, Trees Please is a project of Environment Hamilton and the Hamilton Naturalists' Club created in the hopes of improving Hamilton's overall air quality; and,

WHEREAS, the program offers free native tree giveaways to Hamilton residents across the City to help increase the urban tree canopy;

THEREFORE, BE IT RESOLVED:

(a) That $4,300 be allocated from the Ward 1 Capital Reinvestment Discretionary Account towards the Trees Please program of Environment Hamilton and the Hamilton Naturalists' Club; 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 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

8. Installation of Traffic Calming Measures at Various Locations throughout Ward 2 (Item 11.3)

(Farr/Jackson)
WHEREAS, residents are requesting the installation of speed cushions on various roadways throughout Ward 2 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) Liberty Street from Hunter Street East to Grove Street, Hamilton (1 speed cushion);

(ii) Grove Street from Wellington Street South to Liberty Street, Hamilton (1 speed cushion);

(iii) Ferguson Street South from Liberty Street to Hunter Street East, Hamilton (2 speed cushions);

(iv) Duke Street from Bay Street South to Caroline Street South, Hamilton (1 speed cushion);

(v) MacNab Street North from Mulberry Street to Colbourne Street, Hamilton (2 speed cushions);

(vi) West Avenue South from Stinson Street to Hunter Street East, Hamilton (1 speed cushion);

(vii) John Street North from Burlington Street East to Guise Street East, Hamilton (2 speed cushions);

(viii) Bold Street from Caroline St Street to Bay Street South, Hamilton (1 speed cushion);

(b) That all costs associated with the installation of traffic calming measures at the identified locations throughout Ward 2 be funded from the Ward 2

Special Capital Re-Investment Reserve Account (108052) at a total cost not to exceed $79,500 (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.

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

9. Private Tree Giveaway (Ward 2) (Item 11.4)

(Farr/Jackson)
WHEREAS, the City of Hamilton has declared a climate emergency;

WHEREAS, increasing the urban tree canopy by providing trees for planting on private property has many environmental benefits to the residents of Ward 2 and the wider City; and,

WHEREAS, private tree giveaways are not currently funded under existing tree planting programs;

THEREFORE, BE IT RESOLVED:

(a) That the supply and distribution of approximately 200 small native trees, at a cost of $2,715, be funded from the Ward 2 Capital Reinvestment Discretionary Account; 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 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

10. Beasley Neighbourhood Safety Audit (Ward 2) (Item 11.5)

(Farr/Jackson)
WHEREAS, Vision Zero and Complete Streets principles are used in the City of Hamilton to provide a safer environment for all road users;

WHEREAS, the Ward 2 office has requested a review of the Beasley neighbourhood with a focus on Vision Zero principles at problem locations and to provide a guideline for safety enhancements given the road width, classification, surrounding land use, proximity to schools/playgrounds, access roads from arterials, on-street parking and other considerations; and,

WHEREAS, staff do not have the internal resources to provide a comprehensive audit of the entire Beasley neighbourhood;

THEREFORE, BE IT RESOLVED:

(a) That staff be authorized and directed to retain a consultant to undertake a safety audit of the Beasley neighbourhood with the intent of providing a Complete Streets report identifying areas of concerns and recommendations to provide a safer environment for all road users based on Vision Zero and Complete Streets principles, to be funded from the Ward 2 Special Capital Re-Investment Reserve (108052) to an upset limit of $149,999, as per the Purchasing Policy for Roster Assignments; 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 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

11. New Stop Controls at the Intersection of Rexford Drive and Ashcroft Drive, Hamilton (Ward 6) (Item 11.6)

(Jackson/Pauls)
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; and,

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

THEREFORE, BE IT RESOLVED:

That staff be authorized and directed to take the required steps to add new stop controls on Rexford Drive at Ashcroft Drive to convert the intersection to an all-way stop.

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

12. Sidewalk Widening on the North Side of Cannon Street East, between Elgin Street and Ferguson Avenue North, Hamilton (Ward 2) (Added Item 11.7)

(Farr/Jackson)
(a) That sidewalk widening on the north side of Cannon Street East, between Elgin Street and Ferguson Avenue North, Hamilton, fronting the Depave Community Greening project, at a cost of $30,000, be funded from the Ward 2 Capital Reinvestment Discretionary Account; 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 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

13. Central Composting Facility-Legal Issues Update (CONFIDENTIAL) (LS21011/PW21024) (City Wide) (Item 14.1)

(Pauls/Pearson)

(a) That Report LS21011/PW21024, respecting a Central Composting Facility-Legal Issues Update, be received; and,

(b) That Report LS21011/PW21024, respecting a Central Composting Facility-Legal Issues Update, remain confidential.

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

YES - Ward 2 Councillor Jason Farr
NOT PRESENT - 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

FOR INFORMATION:

(a) CHANGES TO THE AGENDA (Item 2)

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

9. PUBLIC HEARINGS / DELEGATIONS (Item 9)

9.2 Proposed Permanent Closure and Sale of a Portion of Public Unassumed Alleyway Abutting 63 New Street, Hamilton (PW21021) (Ward 1)

9.2.a. Registered Delegations:

9.2.a.a. Michael Renshaw

12. NOTICES OF MOTION (Item 12)

12.1 Sidewalk Widening on the North Side of Cannon Street East, between Elgin Street and Ferguson Avenue North, Hamilton (Ward 2)

(Pearson/Ferguson)
That the agenda for the April 19, 2021 Public Works Committee meeting be approved, as amended.

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

(b) DECLARATIONS OF INTEREST (Item 3)

There were no declarations of interest.

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

(i) March 22, 2021 (Item 4.1)

(Pearson/Farr)
That the Minutes of the March 22, 2021 meeting of the Public Works Committee be approved, as presented.

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

(d) STAFF PRESENTATIONS (Item 8)

(i) Sidewalk Snow Clearing Update (PW19022(c)) (City Wide) (Item 8.1)

Edward Soldo, Director, Transportation Operations and Maintenance, addressed Committee respecting Report PW19022(c), Sidewalk Snow Clearing Update, with the aid of a presentation.

(Pearson/Nann)
That the presentation, respecting Report PW19022(c), Sidewalk Snow Clearing 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

(Nann/Danko)
(a) That the level of service for winter sidewalk snow removal be enhanced as defined as Scenario 2 – Priority 1 and 2A Roadways – Maintaining sidewalks in the existing level of service plus the addition of an estimated 783 km of sidewalk along transit routes, at an estimated cost of $4.44 million, to be approved from the 2022 Public Works Operating Budget, as follows:

(i) Service Level 2A
Activate when snow accumulation is 5 cm or greater
Snow packed condition with de-icing material application

(b) That staff prepare to report back with an implementation plan to proceed with Service Level Scenario 2A as outlined in this report.

Result: **Motion DEFEATED by a vote of 4 to 6, as follows:**

YES - Ward 2 Councillor Jason Farr
YES - Vice Chair - Ward 3 Councillor Nrinder Nann
NO - Ward 4 Councillor Sam Merulla

NO - Ward 5 Councillor Chad Collins
YES - Ward 6 Councillor Tom Jackson
NO - Ward 7 Councillor Esther Pauls
YES - Ward 8 Councillor John-Paul Danko
NO - Ward 10 Councillor Maria Pearson
NO - Ward 12 Councillor Lloyd Ferguson
NO - Chair - Ward 13 Councillor Arlene VanderBeek
NOT PRESENT - Ward 14 Councillor Terry Whitehead

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

(ii) Confederation Beach Park - Wild Waterworks 2021 Season (PW21020) (City Wide) (Item 8.2)

Lisa Burnside and Neil McDougall, Hamilton Conservation Authority, addressed Committee respecting Report PW21020, Confederation Beach Park - Wild Waterworks 2021 Season, with the aid of a presentation.

(Ferguson/Pearson)
That the presentation, respecting Report PW21020, Confederation Beach Park - Wild Waterworks 2021 Season, 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

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

(e) PUBLIC HEARINGS / DELEGATIONS (Item 9)

(i) Krista Jamieson respecting a Request for Snow Removal in City-Owned Alleyways (approved on March 22, 2021) (Item 9.1)

Krista Jamieson addressed the Committee respecting a Request for Snow Removal in City-Owned Alleyways, with the aid of a presentation.

(Nann/Pearson)
That the delegation from Krista Jamieson, respecting a Request for Snow Removal in City-Owned Alleyways, 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
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

(ii) Proposed Permanent Closure and Sale of a Portion of Public Unassumed Alleyway Abutting 63 New Street, Hamilton (PW21021) (Ward 1) (Item 9.2)

Councillor VanderBeek advised that notice of the Proposed Permanent Closure and Sale of a Portion of Public Unassumed Alleyway Abutting 63 New Street, Hamilton (PW21021) (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 was one registered speaker.

Registered Speaker:

1. Michael Renshaw

Michael Renshaw addressed the Committee in support of the Proposed Permanent Closure and Sale of a Portion of Public Unassumed Alleyway Abutting 63 New Street, Hamilton (PW21021) (Ward 1).

(Pearson/Pauls)
That the registered delegation 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 4.

(f) NOTICES OF MOTION (Item 12)

(i) Sidewalk Widening on the North Side of Cannon Street East, between Elgin Street and Ferguson Avenue North, Hamilton (Ward 2) (Added Item 12.1)

(Farr/Jackson)
That the Rules of Order be waived to allow for the introduction of a Motion respecting Sidewalk Widening on the North Side of Cannon Street East, between Elgin Street and Ferguson Avenue North, Hamilton (Ward 2).

Result: **Motion CARRIED by a ⅔'s majority 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 12.

(g) 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) Item Considered Complete and Needing to be Removed:

(i) City of Hamilton's Cemeteries Business Plan
Addressed as Item (h)(i) of Public Works Committee Report 21-004 (PW21015)
Item on OBL: AAO

(ii) Sidewalk Snow Clearing Program
Addressed as Item 8.1 on today's agenda - Report PW19022(c)
Item on OBL: ABS

(a) Items Requiring a New Due Date:

(i) Certificate of Recognition (COR™) Program
Item on OBL: AQ
Current Due Date: June 14, 2021
Proposed New Due Date: Q1 2022

(ii) Roadway Safety Measures on Aberdeen Avenue from Queen Street to Longwood Road
Item on OBL: AZ
Current Due Date: May 3, 2021
Proposed New Due Date: July 7, 2021

(iii) Road Safety Review and Appropriate Measures at the York Road and Newman Road Intersection
Item on OBL: AAE
Current Due Date: April 9, 2021
Proposed New Due Date: May 17, 2021

(iv) Feasibility of Implementation of a Digital Automated Information System on the Lincoln Alexander Parkway and Red Hill Valley Parkway
Item on OBL: AAU
Current Due Date: June 14, 2021
Proposed New Due Date: Q2 2022

(v) Management of the Aviary at 85 Oak Knoll Drive
Item on OBL: AAY
Current Due Date: June 14, 2021
Proposed New Due Date: December 6, 2021

(vi) Regulation of E-Scooters
Item on OBL: ABN
Current Due Date: April 19, 2021
Proposed New Due Date: May 3, 2021

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

(h) PRIVATE AND CONFIDENTIAL (Item 14)

(Ferguson/Nann)
That Committee move into Closed Session respecting Item 14.1, pursuant to Section 9.1, Sub-sections (e), (f) and (k) of the City's Procedural By-law 21-021, and Section 239(2), Sub-sections (e), (f) and (k) of the *Ontario Municipal Act, 2001*, as amended, as the subject matter pertains to litigation or potential litigation, including matters before administrative tribunals, affecting the municipality or local board; the receiving of advice that is subject to solicitor-client privilege, including communications necessary for that purpose; 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.

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

(i) Central Composting Facility-Legal Issues Update (LS21011/PW21024) (City Wide) (Item 14.1)

For disposition of this matter, refer to Item 13.

(i) ADJOURNMENT (Item 15)

(Pearson/Ferguson)
That there being no further business, the Public Works Committee be adjourned at 4:58 p.m.

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

YES - Ward 2 Councillor Jason Farr
NOT PRESENT - 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

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:	May 3, 2021
SUBJECT/REPORT NO:	Wastewater Treatment Plant Bypass and Combined Sewer Overflow Reporting (PW19091(b)) (City Wide) **(Outstanding Business List)**
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Christina Cholkan (905) 546-2424 Ext. 6234
SUBMITTED BY: **SIGNATURE:**	Mark Bainbridge Director, Water and Wastewater Planning and Capital Public Works Department 

COUNCIL DIRECTION

Public Works Committee at its meeting on November 4, 2019 ((PW, Report 19-015, Item 4) (PW19091)) approved the following recommendation:

"(a) That staff be directed to conduct a formal engineering study to analyse the unmonitored combined sewer overflow locations and assess the feasibility and budget estimates for monitoring installations, and that staff report back to the Public Works Committee no later than June 1, 2020 with an interim Information Report and no later than December 31, 2020 with the results of the study;"

An interim report was provided in Report PW19091(a) at the Public Works Committee on June 17, 2020, which indicated the commencement of the formal engineering study noted in recommendation (a). This information report provides the results of the subject study.

INFORMATION

This report provides information in response to the Council direction noted above, providing conclusions of the formal engineering study to analyse the unmonitored combined sewer overflow locations and assess the feasibility and budget estimates for monitoring installations.

Background

The City of Hamilton (City), as part of the Ministry of the Environment, Conservation and Parks' (MECP) Procedure F-5-5 requirements, conducts annual reporting of its Combined Sewer Overflows (CSO). Currently, this reporting is completed using either monitored or estimated (computer modelled) data for each CSO location. Although all outfalls directly downstream of CSO tanks are fully monitored, there remain other outfalls in the combined sewer system not associated with CSO tanks, which are only monitored to detect a CSO (partially monitored) or are unmonitored altogether. The breakdown of monitored vs. unmonitored CSO locations is identified in Table 1 below.

Table 1 – CSO Location Monitoring Summary

Monitoring Status	# of CSO Locations
Fully Monitored (detection + volume)	12
Partially Monitored (detection only)	3
Unmonitored	15

The CSO Outfall Monitoring Feasibility Study (Study) was undertaken to determine the feasibility and estimated costs for fully monitoring the unmonitored and partially monitored locations. Two (2) of the partially monitored locations were studied in a separate assignment. The Study also supports the enhancement of real-time reporting of Wastewater Treatment Plant (WWTP) Bypasses and CSOs on the City's website (www.hamilton.ca/wastewatermonitoring).

More accurate detection and quantification of CSOs is beneficial for the City to mitigate potential under or over reporting of overflows to the MECP, as well as to identify targeted and higher value areas to undertake infrastructure improvements.

In many cases, monitoring at a CSO location is not technically practical or feasible. To record flows from these CSO sites, it is necessary to monitor the flows at upstream diversion structures within the wastewater collection system. There may be one (1) or more diversion structures associated with a single CSO location, therefore requiring one (1) or more flow monitoring stations to accurately measure CSO at each location. For the balance of this report these diversions structures are referred to as 'critical regulators'.

AECOM Canada Ltd. (AECOM) was retained as the consultant for the Study, which included a detailed inventory and an implementation strategy.

Detailed Inventory

A detailed inventory was completed using both desktop and field investigations, which identified a total of 128 critical regulators in the combined sewer systems associated with the studied outfalls. Identifying critical regulators in the system is important considering that the goal is to maximize accuracy in measuring only the combined sewage discharging from the final outfalls, avoiding inputs from direct stormwater connections downstream of critical regulators. AECOM updated an existing database of the subject critical regulators, confirming parameters such as pipe sizes, pipe connections, and weir types.

An industry best practices review was also completed to document the latest equipment technologies (for real-time flow and real-time water quality) and monitoring practices, including identification of pros/cons specific to Hamilton's CSO locations and future needs.

Using the results of the detailed critical regulator inventory, industry best practices review, and consultation with Hamilton Water's staff, AECOM presented preliminary recommendations for equipment selection and implementation considerations (i.e. weir construction and siting/installation of communications infrastructure).

Implementation Strategies

Using the information collected as part of the inventory phase and considering other ongoing related works such as the Real Time Control Phase 2 project, AECOM developed two scenarios for customized monitoring implementation strategies:

Scenario #1 - All 128 critical regulators associated with the studied outfall locations are monitored in real-time using permanent (hardwired) outstations and City's Supervisory Control and Data Acquisition (SCADA) system to receive detailed data from each critical regulator. It is estimated that implementing Scenario #1 could require a long term (10 years or more) staged design and capital construction plan.

Scenario #2 - An optimized scenario in which the goal is to maximize valuable CSO data by installing monitoring at certain critical regulators (estimated 24 locations) that are likely higher volume CSO contributors. The implementation would include a mix of permanent (hardwired) and long-term (battery powered) monitors using cellular data transmission based on proximity to existing infrastructure.

Scenario #2 can be delivered in a phased approach and can start producing data faster than Scenario #1. It is estimated that full implementation of Scenario #2 would require a medium term (four (4) to five (5) years to design and fully construct.

Feasibility study level cost estimates (Class C, +/- 25% to 30%) were prepared for implementation of Scenario #1 and Scenario #2 (Phases 1 and 2), which are summarized in Table 2.

Table 2

Scenario	Estimated Total Capital Cost	Estimated Annual O&M Cost
Scenario #1	$17,033,000	$782,500
Scenario #2	$1,344,500	$115,800

The estimated annual maintenance costs provided by AECOM assume work by an external party (i.e. contractor) and include general maintenance for chamber regulators and weirs, sensor calibration, cellular telemetry fees, and data hosting. Cost estimates shown exclude inflation assumptions for work that may be completed in a longer-term program, as well as asset replacement costs.

If at any time the City decides to assume the ongoing operations and maintenance of the proposed additional monitoring, additional staffing resources within Hamilton Water would be required, which have not yet been determined.

Conclusions

A formal engineering study was completed by AECOM in response to PW19091 recommendation (a) to analyse the unmonitored combined sewer overflow locations, including budget estimates.

AECOM's Study provides a professional opinion on recommendations for implementing real-time flow monitoring at the studied CSO locations, while also providing a detailed breakdown which would allow the City to further customize the implementation strategy as necessary to suit budget and/or timelines. Scenario #2 represents AECOM's recommendation for a best value monitoring strategy.

APPENDICES AND SCHEDULES ATTACHED

None

PW21001(b)
Mike Field, Extension 4576

INTERSECTION CONTROL LIST
Public Works Committee – May 3, 2021

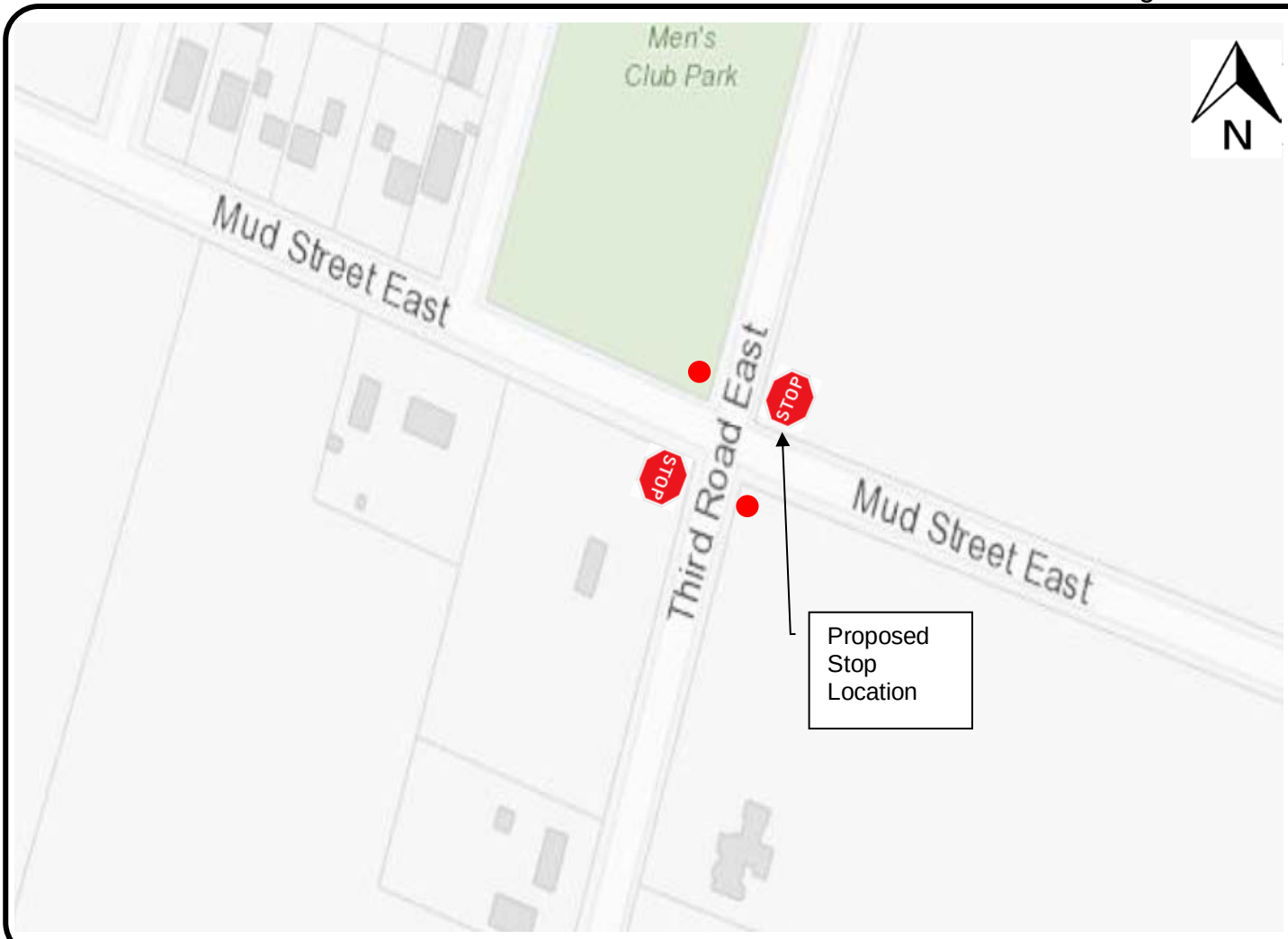
PUBLIC WORKS DEPARTMENT
Transportation Operations & Maintenance Division
Transportation Operations Section

RECOMMENDATION

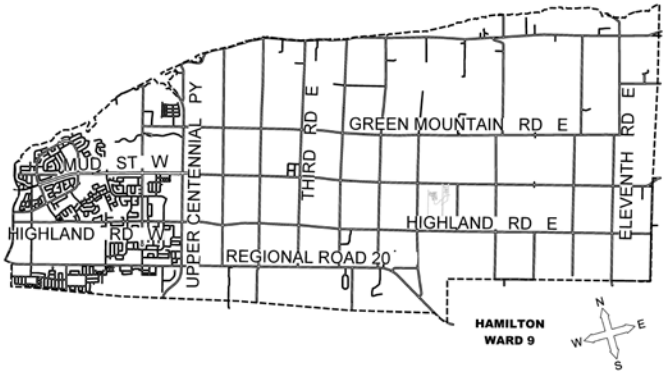
That the appropriate By-law be presented to Council to provide traffic control as follows:

Intersection			Stop Control Direction		Class	Comments / Petition	Ward
	Street 1	Street 2	Existing	Requested			
Section "F" Stoney Creek							
(a)	Mud Street East	Third Road East	NB/SB	EB/WB	C	Sightline issues, converting to All-way	9

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



KEY MAP



LOCATION PLAN

PROPOSED STOP CONTROL:

Mud Street East at Third Road East

Transportation Operations & Maintenance
PUBLIC WORKS DEPARTMENT

LEGEND

EXISTING STOP

PROPOSED STOP

SCALE
NOT TO SCALE

DATE
May 3, 2021

Authority: Item 9, Public Works Committee
Report 07-016 (PW07153)
Date: May 3, 2021
Wards: 9

Bill No.

CITY OF HAMILTON

BY-LAW NO. 21-

To Amend By-law No. 01-215
Being a By-law To Regulate Traffic

WHEREAS sections 8, 9 and 10 of the Municipal Act, 2001, S.O. 2001, c. 25, authorize the City of Hamilton to pass by-laws as necessary or desirable for the public and municipal purposes, and in particular paragraphs 4 through 8 of subsection 10(2) authorize by-laws respecting: assets of the municipality, the economic, social and environmental well-being of the municipality; health, safety and well-being of persons; the provision of any service or thing that it considers necessary or desirable for the public; and the protection of persons and property;

AND WHEREAS on the 18th day of September, 2001, the Council of the City of Hamilton enacted By-law No. 01-215 to regulate traffic;

AND WHEREAS it is necessary to amend By-law No. 01-215.

NOW THEREFORE the Council of the City of Hamilton enacts as follows:

1. Schedule 5 (Stop Control) of By-law No. 01-215, as amended, is hereby further amended by adding to Section “F” (Stoney Creek) thereof the following item, namely;

Mud Street East	Eastbound/Westbound	Third Road East

2. Subject to the amendments made in this By-law, in all other respects, By-law No. 01-215, including all Schedules thereto, as amended, is hereby confirmed unchanged.

3. This By-law shall come into force and take effect on the date of its passing and enactment.

PASSED this 12th day of May, 2021.

F. Eisenberger
Mayor

A. Holland
City Clerk

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

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	May 3, 2021
SUBJECT/REPORT NO:	Commercial E-Scooters Operations (PED20134(a)) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Peter Topalovic (905) 546-2424 Ext. 5129
SUBMITTED BY: **SIGNATURE:**	Brian Hollingworth Director, Transportation Planning and Parking Planning and Economic Development Department

RECOMMENDATION

(a) That staff be directed to initiate a Request for Proposals to select a maximum of three commercial E-Scooter operators to operate within the City of Hamilton, based on the general scope and terms set out herein this Report PED20134(a);

(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(a);

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

(d) That item 21B and 21C be removed from the Outstanding Business List, as this report addresses the Advisory Committee for Persons with Disabilities Reports: 20-007, December 8, 2020 (Item 9.1).

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, 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.

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. 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 three 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 500 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 addition E-Scooters in

keeping with the same ratio of 150 devices per ten square kilometres to a maximum of 900 E-Scooters (per operator). 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.

The 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, and enforcement as well as operations fees to offset impacts to the existing public bike share system.

Alternatives for Consideration – See Page 13

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) **$5,000.00** Annual Administration Fee;
2) **$5.00** Program Improvement Fee per E-Scooter per year;
3) **$40.00** Annual Vehicle Fee per E-Scooter for the first 100 devices;
4) **$45.00** Annual Vehicle Fee per E-Scooter for each additional vehicle beyond 250 devices up to 500 devices (if applicable);
5) **$50.00** Annual Vehicle Fee per E-Scooter for each additional vehicle from 500 to 900 devices (if applicable); 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, in combination with fines levied in under the in the E-Scooter by-law, will be utilized for enforcement.

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

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.

E-Scooter enforcement fines are already established in By-law Number 20-270, that apply to users and commercial operators.

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.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

The operating framework outlined in this Report complies with the Provincial pilot regulation, O. Reg. 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 Micromobility 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 Committee, Cycle Hamilton, and the Canadian National Institute for the Blind 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. Recommendations from the ACPD have been considered in the development of the Commercial E-Scooter request for proposals process. Specifically, the RFP will encourage operators to include specialized equipment that alerts pedestrians to the presence of an E-Scooter. The RFP will also include provisions for operators to be trained on safe operation. It is also noted that the industry is moving towards a more formal regime which will address licencing, insurance requirements as advocated for by the ACPD; however, these matters are generally regulated by the province of Ontario.

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 two years. The City reserves the right to terminate the agreement should the commercial operator breach the agreement for any reason, with proper notification. The parties may also agree to one-year renewals of the Agreement for an additional three terms comprising no more than a five-year term in total;
- **Number of Scooters:** Staff is recommending a maximum of three operators be selected, with each operator managing a fleet of no less than 250 scooters and no more than 500 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 keeping with the same ratio of 150 devices per ten square kilometers to a maximum of 900 E-Scooters per operator;
- **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; and,
- **Acoustic Vehicle Alerting System:** operators will be encouraged to include specialized equipment that creates a sound automatically to alert pedestrians to the presence of an E-Scooter on a sidewalk or pathway where they are not permitted. This system is in addition to the provision of a bell, which is a legal requirement for operators.

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 a RFP approach would be most appropriate.

The RFP process will ensure that the City is able to launch an E-Scooter micromobility 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 250 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; and,
- **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 Everyone Rides Program (the Bike Share Equity Program operated by HBSI) and support for additional bike parking infrastructure to be installed by the City.

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 micromobility 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 three operators pass, the operators with the top three 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 or acoustic vehicle alerting systems. 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-ways for pedestrians 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. If the commercial E-Scooter operators cannot resolve the complaints, Staff in By-law Services will be alerted to non-compliance issues and enforce the by-laws pertaining to 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. Transportation Planning 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 micromobility 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.

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

ALTERNATIVES FOR CONSIDERATION

Council can decide not to seek a 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

BH:MC:cr

CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Hamilton Water Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	May 3, 2021
SUBJECT/REPORT NO:	Pier 25 Dredging - Memorandum of Understanding Between the City of Hamilton and Hamilton Oshawa Port Authority (PW21025) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Stuart Leitch (905) 546-2424 Ext. 7808 Chris Mills (905) 546-2424 Ext. 4985 Angela Doyle (905) 546-2424 Ext. 6020
SUBMITTED BY: **SIGNATURE:**	Mark Bainbridge Director, Water and Wastewater Planning and Capital Public Works Department 

RECOMMENDATION

(a) That the City of Hamilton update the Amending Agreement to the Memorandum of Understanding (set out in Report PW08055(a)), between the City of Hamilton and the Hamilton Oshawa Port Authority, to set out respective obligations of the City of Hamilton and Hamilton Oshawa Port Authority related to the dredging in the Pier 25 Hamilton Oshawa Port Authority owned lands for a ten-year period; and,

(b) That the City of Hamilton be authorized to execute a Second Amending Agreement to the Memorandum of Understanding, and all necessary associated documents with content approval by the General Manager of Public Works and in a form satisfactory to the City Solicitor.

EXECUTIVE SUMMARY

In October 2000, the City of Hamilton (City) and Hamilton Oshawa Port Authority (HOPA) entered into a settlement agreement to transfer ownership of Windermere Basin lands to the City. The parties agreed that HOPA would no longer have responsibility for

maintenance dredging and greenspace development in the Windermere Basin lands. In December 2009, the City and HOPA entered into an Amending Agreement and Memorandum of Understanding (MOU) to formalize the City's ability to develop the Windermere Basin to a wetland. In exchange, the City assumed responsibility for maintenance dredging of the Hamilton Harbour in the vicinity of HOPA owned Pier 25 (Report PW08055a).

The 2009 MOU expired on December 3, 2019. City staff, including the Legal Services Division, have been working with HOPA representatives to identify opportunities and details associated with amending the December 2009 MOU. This document is needed in order to proceed with the upcoming maintenance dredging to remove the build-up of sediments in the vicinity of Pier 25. For the upcoming dredging activities, design would commence in late 2021, with construction occurring in 2022. In order to facilitate the upcoming dredging, Hamilton Water is recommending that HOPA initiate professional services for consultants and contractors on all required works for the dredging, unloading, dewatering, trucking and disposal of the dredgeate at full cost to the City.

The 2020 ShorePlan Pier 25 Maintenance Dredging Dredgeate Disposal Feasibility Study, attached to Report PW21025 as Appendix "B", recommended that the preferred method is to temporarily store 30,000 m^3 of dredged material within HOPA owned Pond N-2 with final disposal to an approved landfill.

City staff are seeking Council approval to amend and finalize the MOU Agreement to reflect the next ten-year period for dredging work in the vicinity of HOPA owned Pier 25. The MOU amendment is required to reflect minor administrative updates and alteration of certain terms and conditions between the City and HOPA.

Alternatives for Consideration – See Page 6

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Hamilton Water recommends the City update HOPA / City MOU to reflect current language, new ten-year timeframe and to ensure fees are in line with industry standards.

Financial: The City will be responsible to dredge the Pier 25 site on an approximate six (6) year cycle for an average volume of 30,000 m3. Based on the 2020 ShorePlan Pier 25 Maintenance Dredging Dredgeate Disposal Feasibility Study, the City should anticipate a minimum fee for the operation and HOPA services in the range of $9,000,000 - $12,000,000 every six (6) years to cover the professional services associated with consultants and contractors for all required works for the dredging, unloading, dewatering, trucking and

disposal of the dredgeate at full cost to the City. The Public Works Rate Supported Capital Budget currently includes forecasted funds of $250,000 for design in 2021 and $13M for construction in 2022 for the Pier 25 Dredging project (Project ID 5162068851).

Staffing: The implementation of the recommendations contained in this Report will require a City staff member from the Public Works Department to serve as the respective liaison representative with HOPA for each required dredging project. It is anticipated that this effort can be accommodated within the existing staffing complement.

Legal: The City has a current legal obligation to HOPA to undertake maintenance dredging of Pier 25. The amended MOU will set out requirements for the City to dredge Area A, attached to Report PW21025 as Appendix “A”, to reflect the next ten-year period.

HISTORICAL BACKGROUND

Windermere Basin (Basin) is located in the east end of the Hamilton Harbour (Harbour), at the mouth of the Red Hill Creek in the City of Hamilton. Located in the Harbour and immediately downstream of the Basin are Piers 24 and 25, where significant shipping activity occurs under the control of HOPA. Located approximately one kilometre upstream of the Basin is the Woodward Avenue Wastewater Treatment Plant, which discharges treated effluent directly into the Red Hill Creek.

In 1988, a remedial program to reconfigure and rehabilitate the Basin as a sediment trap was conducted by Public Works Canada on behalf of the Hamilton Harbour Commissioners (subsequently changed to HOPA). The work, which was completed in 1990 involved the construction of a series of eight dyked containment cells situated around the perimeter of the Basin; the dredging of the Basin to remove a large quantity of contaminated sediments which were deposited into the newly constructed containment cells; and the additional dredging of a portion of the Basin which created a sediment trap to capture future sediments entering the Basin.

Following the completion of the rehabilitation project in 1990, no additional remedial activities have been conducted in the Basin, except for the capping of the dredged sediments in the containment cells which occurred over several years. Out of the eight (8) containment cells, only Cell #4 remains open. The capped disposal cells have created large areas of reclaimed lands surrounding the Basin that are presently vacant and unoccupied. Although the 1990 rehabilitation project served to remove sediment from the Basin, it did not address the upstream sources of sediment. The goal of the

1990 rehabilitation project was to encourage sedimentation within the Basin, which would be dredged periodically.

In October 2000, HOPA transferred ownership of the Windermere Basin and surrounding lands to the City. As part of this agreement, the City assumed responsibility for maintenance dredging of the Basin, to be undertaken in a timely manner to ensure that the build-up of sediment does not impinge upon the shipping, navigation, and transportation needs of the Harbour's operations. The HOPA also acknowledged and agreed that the City will be permitted to deposit dredgeate in the prepared cell (Cell #4) on the western edge of the Basin, including encroachment on adjacent HOPA lands. As part of the transfer of ownership, the City received a sum of approximately $10 million from HOPA, to be utilized for the maintenance of the Basin.

In 2005, the City retained C.B. Fairn and Associates (C.B. Fairn) to conduct a review of the existing conditions at the Basin, and evaluate feasible alternatives for a preliminary dredging plan to restore the sediment trap function of the Basin and ensure that the adjacent Harbour's shipping and navigation operations are not adversely affected. A total of nine (9) alternatives were examined, ranging from dredging the full quantity of accumulated sediments from the Basin and sediment trap, to providing no dredging within the Basin and conducting dredging activities only at Pier 25 within the Harbour. The costs of the various options ranged up to $24 million. The dredging of the entire Basin with mechanical dewatering of the dredgeate was found to be most expensive alternative, while dredging the Pier 25 area and leaving the Basin "as is" was found to be the least expensive. C.B. Fairn recommended that the City consider leaving the Basin as the "status quo" and, instead, develop a dredging plan that removes the sediment deposits from the Harbour itself.

In 2007, the City initiated a Schedule "B" Municipal Class Environment Assessment (Class EA) to study enhancements to the Basin that would address sediment issues and provide for naturalization opportunities. The Class EA, conducted by Cole Engineering Group Ltd. (CEG) and AECOM Canada (AECOM), prepared an inventory of existing conditions of the terrestrial and aquatic environment, surface water quality, sediment quality, social environment, and archaeology. Four (4) alternative solutions were developed in order to address the identified problem and opportunity and were evaluated based on criteria that reflect the definition of "environment" provided in the *Ontario Environmental Assessment Act* and the specific circumstances associated with the project. As a result of a comparative evaluation that was undertaken, a preferred alternative was determined for the project. The Class EA concluded that the preferred alternative that should be considered for preliminary design is the construction of a watercourse to direct sediment to the Harbour and the creation of an aquatic habitat (wetland) within the remainder of the Basin by re-working accumulated sediment. The preferred alternative would see maintenance dredging occurring in the Harbour in the

vicinity of Pier 25, and not within the Basin. The Class EA process was documented by the 'Enhancement of Windermere Basin Project File', dated May 2008. City Council approved the filing of the Project File in May 2008, which was presented as Committee Report PW08055.

Upon filing the Notice of Completion for the Class EA, as approved by Council, the City proceeded with the preliminary and detailed design of the Enhancement of Windermere Basin. The preliminary design used the preferred alternative that was selected during the Class EA process and refined the conceptual design in more detail. The preliminary design outlined detailed design, construction, and operations and maintenance considerations/recommendations that were incorporated in the detailed design.

In 2009, CEG and AECOM prepared and completed the detailed design for the Enhancement of Windermere Basin. The detailed design used the proposed natural environment and sediment management design concepts, presented in the Preliminary Design Report, and advanced them to detailed drawings and contract documents. The Enhancement of Windermere Basin project construction was completed in May 2013.

In 2009 / 2010, the City and the HOPA developed and approved a new Amending Agreement and MOU for a ten-year period that expired on December 3, 2019. This agreement formalized the ability of the City to develop the Windermere Basin into a wetland area in exchange that the City would assume responsibility for dredging of the Hamilton Harbour in vicinity of HOPA owned Pier 25. The terms of the MOU, dated December 3, 2009, was for a ten-year timeframe with HOPA adding an addition Project Management fee of 10% for all project related costs.

In 2015, HOPA retained C.B. Fairn and Associates Ltd. to complete a Feasibility Study for Dredgeate Disposal Management Plan for Pier 25 Maintenance Dredging. Design and construction activities for the 2016 dredging work was managed by HOPA and construction activities were completed by Dean Construction. Dredgeate material was disposed of at HOPA owned Pond N-2, located in Pier 22.

The current Committee Report is to modify and define agreed upon terms of the MOU for the City and HOPA for an additional ten-year period.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

For the MOU, there are no known policy implications.

For the dredging works that result from previous agreements, there are a number of policies, regulations, and statutes that are related to dredging activities, including:

- *Navigation Protection Act* (Transport Canada)
- *Fisheries Act*
- Development, Interference with Wetlands and Alterations to Shorelines and Watercourses: Regulation 161/06 under Ontario Regulation 97/04
- Ontario Regulation 347
- *Ontario Endangered Species Act*
- *Ontario Water Resources Act*
- Ontario On-site and Excess Soil Management Regulation 406/19

RELEVANT CONSULTATION

City staff, including Legal Services and Hamilton Water, has been working with HOPA to update the previous 2009 Amending Agreement / MOU. In addition, the following were consulted on the Feasibility Study, dated June 2020 for 2021 design work for the Pier 25 Dredging project:

- City of Hamilton
- Hamilton Oshawa Port Authority

ANALYSIS AND RATIONALE FOR RECOMMENDATION

The City is obligated to dredge Pier 25 in a timely manner to maintain shipping routes. HOPA anticipates that there will be approximately 30,000 m3 of dredgeate required to be removed every six (6) years.

ALTERNATIVES FOR CONSIDERATION

As an alternative approach the City can retain a dredging specialist firm to act as the Owners Engineer for the design and construction administration of the dredging works. The impact of this alternative is outlined below:

Financial Implications:

In this scenario, rather than pay HOPA to perform the project management role for design and construction, the City would retain a Consultant specialising in dredging to perform the project management role, which would follow the City's Request for Proposal (RFP) process. This alternative is expected to carry higher costs as related to leasing property from HOPA to complete the Works and the additional effort required to capture the knowledge that is currently intimate with HOPA.

Staffing Implications:

In this scenario, the City would need to dedicate a Project Manager to oversee the project management firm specialising in dredging to manage the design and construction administration of the dredging works.

Legal Implications:

In this scenario, the City would not have the benefit of a Federal body leading the project. The City would also need to expedite the process to ensure the dredging commitments are completed in 2022 to avoid navigational concerns at Pier 25.

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.

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

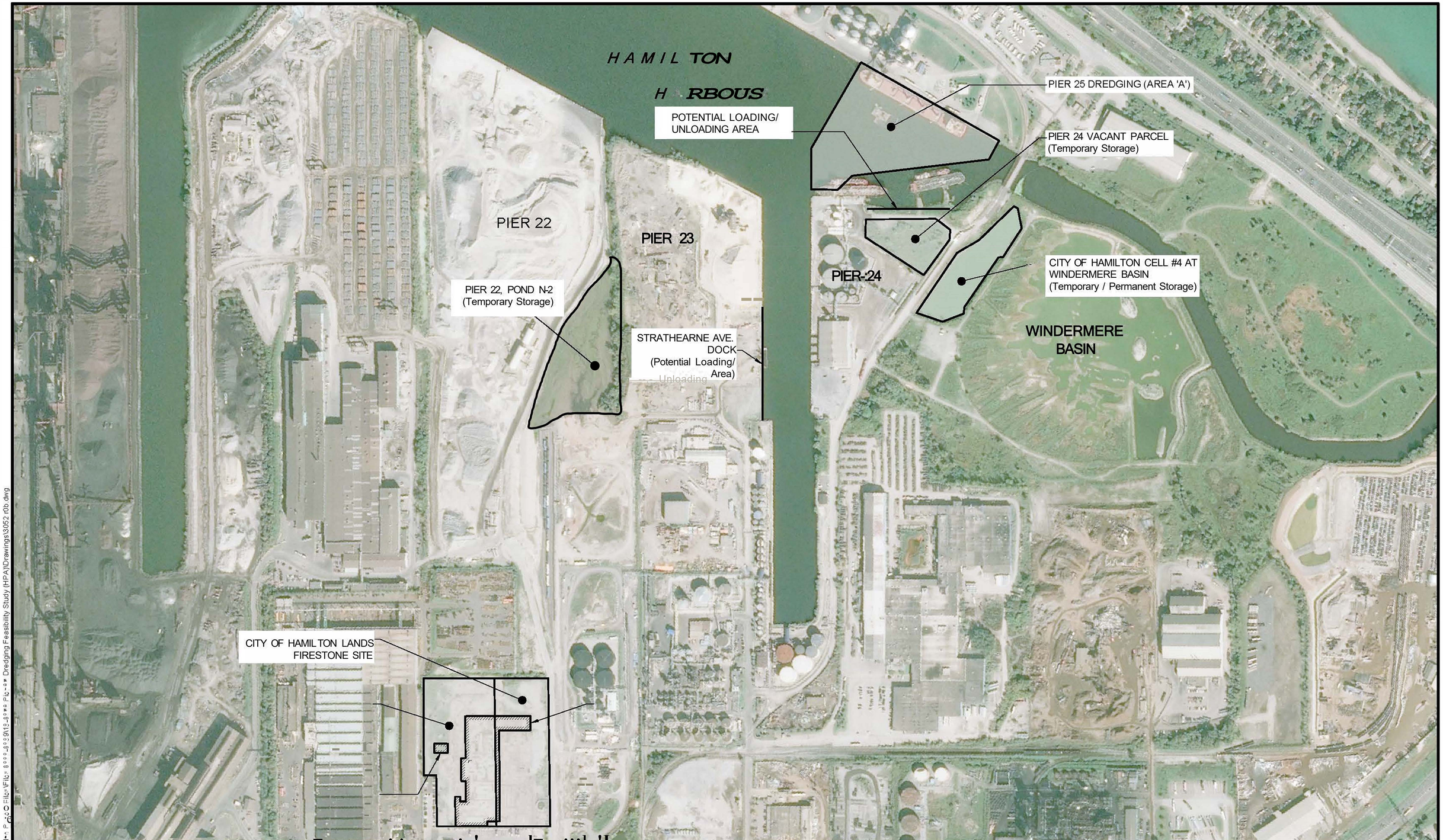
Clean and Green
Hamilton is environmentally sustainable with a healthy balance of natural and urban spaces.

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

APPENDICES AND SCHEDULES ATTACHED

Appendix “A” to Report PW21025 - Diagram for Pier 25 Dredging Responsibility

Appendix “B” to Report PW21025 - ShorePlan Pier 25 Maintenance Dredging Dredgeate Disposal Feasibility Study



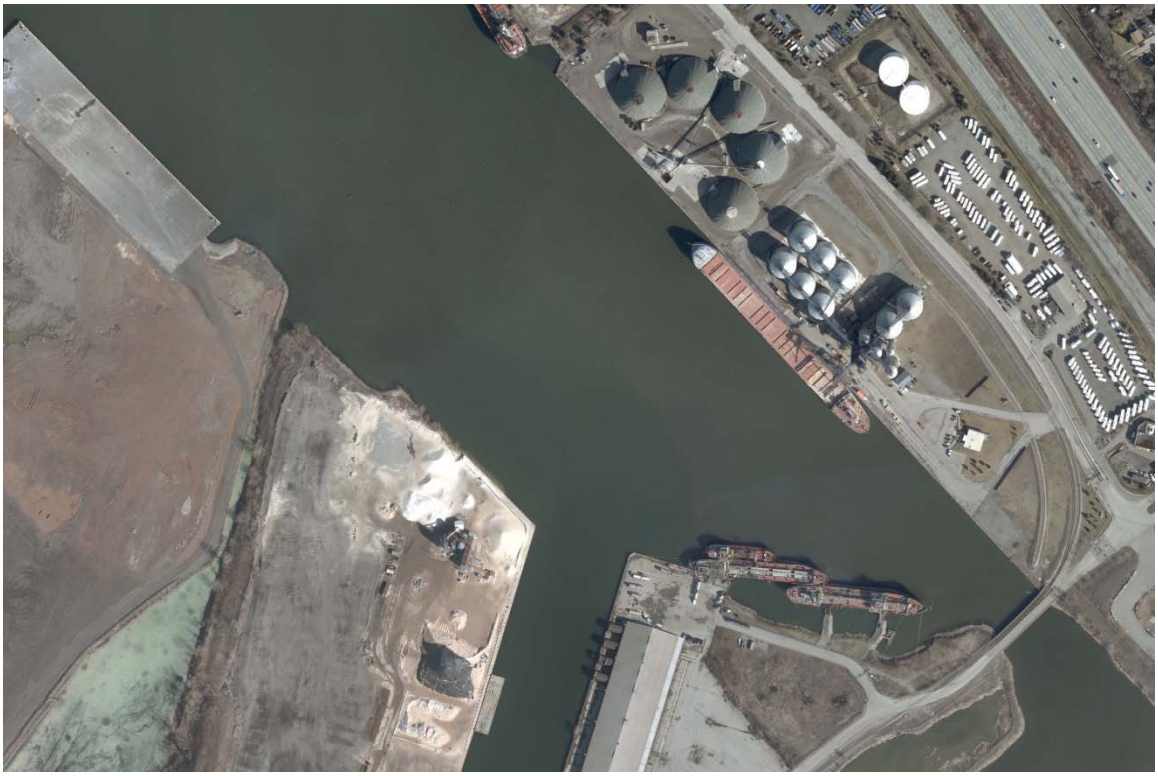
Project: 19-3052
Scale 1:600

Figure 1
Pier 25 Dredging Feasibility Study
Dredge Areas

FINAL REPORT

HAMILTON - OSHAWA PORT AUTHORITY

Pier 25 Maintenance Dredging Dredgeate Disposal Feasibility Study



prepared by

Shoreplan Engineering Limited

June 2020

SHOREPLAN

Pier 25 Maintenance Dredging Dredgeate Disposal Feasibility Study

Prepared for

Hamilton - Oshawa Port Authority

by

SHOREPLAN

SHOREPLAN ENGINEERING LIMITED

VERSION	DATE	STATUS	COMMENTS
01	2019-10-15	preliminary draft	for discussion
02	2019-12-16	Final Draft	for review
03	2020-03-23	City Comments	for review
04	2020-06-15	Final Report	

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1 INTRODUCTION

Hamilton - Oshawa Port Authority (HOPA) and the City of Hamilton (City) are preparing for the next maintenance dredge of an area offshore of Pier 25. Pier 25 is located along the east shore of Hamilton Harbour near Strathearne Channel. The City is responsible for dredging this area to maintain Seaway draft at Pier 25. The last maintenance dredges were in 2016 and 2010. HOPA carried out this work on behalf of the City. It is anticipated that the next dredge will occur in 2022.

HOPA retained Shoreplan Engineering Limited to carry out a dredgeate disposal feasibility study. This report describes the dredging operation and management of excess material both solid and liquid. The report is organized in six sections with figures and tables provided at the end of each section in which they are referenced. Section 2 provides a general overview of the dredging operation and description of the sediment quality from the sample testing carried out in 2016 prior to the previous dredge at Pier 25. Dredgeate disposal sites, which include two City sites, two HOPA properties and two local landfills, are discussed in Section 3. Section 4 describes the management of excess liquid or water that is generated from the dredging operation and entrained in the dredge material. It also provides a general overview of methods to dry the material for transfer to a local landfill. Approvals and permits required to dredge Pier 25 are provided in Section 5. A summary of the disposal options and costs are provided in Section 6 along with our recommendations.

2 DREDGE METHODS AND SEDIMENT QUALITY

Pier 25 is located at the east end of Hamilton Harbour where the harbour narrows at Windermere Basin/ Red Hill Creek. Several port users use Pier 25 to load and unload large shipping vessels which require Seaway draft (8.2m depth below chart datum (74.0m, IGLD 1985). This area experiences ongoing siltation which requires maintenance dredging. The area is historically dredged to 9.0m below chart datum every 6 years. Figure 2.1 shows the location of Pier 25 and the dredge area.

HOPA recently completed a sounding survey of the area. Figure 2.2 shows the depths soundings. The estimated dredge volume to establish a navigation depth of 9m below chart datum is currently 15,000m^3. It is estimated that by summer 2022 this volume will increase to approximately 30,000m^3.

2.1 Dredging Methods

Dredging methodology depends on the equipment, materials and labour available to the contractor at the time of the project. The following provides a possible methodology based on experience on similar projects in Southern Ontario.

Dredging may be carried out using mechanical or hydraulic equipment. It is anticipated the dredging operation will be carried out using a mechanical marine-based dredging plant with tugboat and scows. Mechanical dredging plant equipment will consist of a crane or long reach excavator fitted with a bucket. The type of bucket used depends on the quality of the material. An open bucket can be used where material is not contaminated. It allows water to drain maximizing the quantity of material lifted off the bottom with each bucket and placed in a scow. A closed bucket or environmental bucket is used when there is a potential for contaminated dredge material or in areas sensitive to turbidity. This bucket seals tight once it is closed around the material preventing loss of dredge material through the water column as the bucket travels to the surface. Water does not escape from the bucket until it is opened over the scow.

Hydraulic dredging equipment uses suction to lift material off the bottom. Depending on the material being dredged, the head of the suction pipe is fitted with a cutter head to help loosen the material on the bottom. A slurry of dredgeate travels along the pipeline to a scow. Hydraulic dredging contains a higher percentage of water compared to mechanical dredging.

Once a scow is full, a tugboat maneuvers the scow to a dock where it is unloaded using an excavator or pumped to a temporary staging area. From shore it can be loaded into trucks and transported to a disposal site. Depending on the quality of the material (e.g., slump, water content) the material may need to be temporarily stored so that it can be decanted/dried and/or tested before being transported to a disposal site. The disposal sites available depend on the sediment quality.

Dredging 30,000m^3 of material is estimated to be completed in approximately 8 to 10 weeks, depending on weather conditions. Construction timing of the work will be restricted by the fisheries in-water work window. Construction of the facilities to support the dredge operation, dewatering

and management of the material on land will depend on the dredge material qualities and disposal site selected.

The work will need to be carried out within a turbidity curtain. Additional measures may be required depending on the dredging method employed and the quality of the material.

2.2 Sediment Quality

Prior to the next maintenance dredge, sediment samples will be collected and tested according to Ministry of Environment Conservation and Parks (MECP) guidelines. These guidelines/ regulatory documents include:

- Rules for Soil Management and Excess Soil Quality Standards (MECP, 2019) which provides guidance on the management of excess material and has been adopted as Ontario Regulation 406/19 (On-Site and Excess Soil Management);
- Fill Quality Guide and Good Management Practices for Shore Infilling in Ontario (MECP, 2011) for disposal near or in the water; and
- Soil Ground Water and Sediment Standards for Use Under XV.1 of the Environmental Protection Act (MECP, April 2011) for on land disposal.

MECP (2019) specifies criteria for reuse of soil on land, while MECP (2011) provides guidance on in-water disposal. Hamilton is a federal port and shipping and navigation are federally regulated activities. This dredge project is required to maintain navigation within the Port. The project is under federal jurisdiction and is not required to meet provincial regulations. However, meeting the intent of the provincial regulations is considered a best practice by HOPA.

MECP (2019) consists of two parts: Part I: Rules for Soils management and Part II: Excess Soil Quality Standards. Part I addresses requirements for planning and management including an assessment of past uses, a sampling and analysis plan, a soil characterization report, an excess soil destination assessment report and requirements of a tracking system. It also includes direction on soil processing and storage, waste transfer sites, and reuse sites. It addresses specific rules for reuse sites in relation to specific types of soil and types of reuse sites, the use of the Beneficial Reuse Assessment Tool (BRAT) and risk assessments. Part II provides direction on determining the applicable generic excess soil quality standards. This section provides tables of generic excess soil quality standards. Prior to this regulation change, the soil would be compared to Soil Ground Water and Sediment Standards for Use Under XV.1 of the Environmental Protection Act (MECP, April 2011) for on land disposal and Fill Quality Guide and Good Management Practices for Shore Infilling in Ontario (MECP, 2011) for disposal near or in the water.

In 2016, Peto MacCallum Limited (PML) carried out sediment sampling and testing of the area offshore of Pier 25 in order to characterize the material for land disposal and management during completion of the previous dredging project. Their report, titled Pier 25 Pre-Dredge Sediment Sampling and Chemical Testing Program Pier 25 Hamilton Ontario for Hamilton Port Authority dated April 2016 provides details of their sampling and testing procedure. Sixteen samples (fourteen grab and two composite) were tested. The sediment testing results were compared to

Table 9 - Generic Site Condition Standard for Use within 30 m of a Water Body in a Non-Potable Groundwater Condition and Table 3 – Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition (MECP, April 2011) for on land disposal.

PML found that the samples tested did not meet Table 9 criteria. They also found that the sediment quality did not meet Table 3 criteria for several metals and inorganics parameters and acid/base/neutral compounds.

The Fill Quality Guide (MECP, 2011) states that contaminated fill should not be placed in the water or along the shore or bank adjacent to the water or along the shore or bank. Materials placed behind an impermeable barrier on the shore or bank that can withstand a one in 100 year storm are not subject to the Fill Quality Guide. If the material meets the guidelines for unconfined fill (Table C-2) it may be placed in or near the water. If the material meets the guidelines for Confined Fill (Table C-1), the material may be placed within the confines of a structure that is capable of withstanding the 100 year storm and prevents it from coming in contact with open water and being washed away. The 2016 sediment sample test results indicate that the material does not meet the criteria for either unconfined fill or confined fill. Prior to the next dredge harbour bottom sediments should be sampled and tested. If the sediment meets the standards provided in the Fill Quality Guide for Shore Infilling, more beneficial reuse options for material management are available.

The sediment samples were also compared to O. Reg. 347 as amended by O. Reg. 558/00 for disposal at a landfill. The sediment quality met O. Reg. 347 as amended by O. Reg. 558/00 Schedule 4 Criteria. The material can be classified as non-hazardous waste for landfill disposal. PML provided a list of guidelines for off-site and on-land disposal of the material. In particular, they state that the dredgeate cannot be taken to a property for which a Record of Site Condition (RSC) has been previously filed unless the sediment meets the Site Condition Standard (SCS) contained in the RSC.

For this feasibility study, a comparison of the PML sample test results to Table 3.1 (Full Depth Excess Soil Quality Standards in Non-Potable Ground Water Condition) and Table 9.1 (Full Depth Excess Soil Quality Standards for use within 30 metres of a Water Body in a Non-Potable Water Condition) of MECP (2019) was carried out. It was found that the sediment sample qualities did not meet Table 3.1 or Table 9.1 standards. Table 1 presents a summary of the contaminants tested by AGAT Laboratories and provided in the PML report that exceeded Table 3.1 standards. The contaminants presented have at least one sample of the 16 samples tested that exceeded the standard for either disposal location (i.e., Residential/Parkland/Institutional or Industrial/Commercial/Community). The average concentration of the 16 samples is also presented. Where an average exceeded Residential/ Parkland/Institutional standards the value is blue text. Where the average exceeded the Industrial/ Commercial/Community standard the value is red text and where the average did not exceed either standard the value is black text. Overall the contaminate levels were found to be consistent across the site.

Table 2.1 - Contaminant Exceedances

	Table 3.1(MECP 2019) Soil Standard (ug/g)		Average of 16 samples (µg/g)
	Residential/ Parkland/ Institutional	Industrial/ Commercial/ Community	
Parameter	**Any exceedance is coloured by category**		
Acenaphthylene	0.093	0.093	0.074
Anthracene	0.16	0.16	0.17
Benz(a)anthracene	0.5	1	0.38
Benzo(a) pyrene	0.57	0.7	0.91
Bis(2-Ethlhexyl)Phthalate	5	28	4.1
Boron (hot water soluble)	1.5	2	1.86
Cadmium	1.2	1.9	1.46
Copper	140	230	159
Fluoranthene	0.69	70	2.15
Indeno(1,2,3-cd)pyrene	0.38	0.76	0.4
Mercury	0.27	0.27	0.28
Petroleum Hydrocarbons F2	10	26	>30
Petroleum Hydrocarbons F3	300	1700	609
Polycholrinate Biphenyls	0.35	0.78	0.57
Selenium	2.4	5.5	3.9
Toluene	0.99	7.8	1.31
Zinc	340	340	720.9
Electrical Conductivity	0.7	1.4	1.46

Legend
Blue text parameter concentration exceeds MECP (2019) Table 3.1 Residential/Parkland/ Institutional
Red Text parameter concentration exceeds MECP (2019) Table 3.1 Industrial/Commercial/Community

Table 9.1 of the Excess Soil Quality Standards (MECP 2019) provides standards for contaminant for use within 30 metres of a water body. These levels are equivalent or more stringent than the levels set out in Table 3.1 (MECP 2019) which the currently available samples exceed. Figure 2.3 Decision Tree for Disposal Options

provides a decision tree for determining the disposal options based on the sediment quality.

Development of a site-specific excess soil quality standard may be possible using the Beneficial Reuse Assessment Tool (BRAT) or carrying out a site-specific risk assessment. These assessments must be carried out by a Qualified Person as set out in section 5 or section 6 of O.Reg.153/04. MECP (2019) also has special considerations for soil that have been solidified using certain additives which may restrict the reuse site to being 30 metres way from a water body.

HAMILTON HARBOUR

PIER 22

PIER 23

PIER 24

WINDERMERE BASIN

PIER 25 DREDGING (AREA 'A')

POTENTIAL LOADING / UNLOADING AREA

PIER 24 VACANT PARCEL (TEMPORARY)

PUMPING STATION

CITY OF HAMILTON CELL #4 AT WINDERMERE BASIN (TEMPORARY OR PERMANENT)

CITY OF HAMILTON PROPERTY (TEMPORARY)

PIER 22, POND N-2 (TEMPORARY)

STRATHEARNE AVE. DOCK. POTENTIAL LOADING / UNLOADING AREA

FIRESTONE SITE (TEMPORARY)

CITY OF HAMILTON LANDS CONCEPTUAL DREDGEATE MANAGEMENT SITE (± 5 ACRES)

CITY OF HAMILTON LANDS POTENTIAL ADDITIONAL DREDGEATE DISPOSAL LANDS

DEMOLISHED BUILDING BASEMENT

UNDERGROUND SOLVENT TANK

Drawing Location: S:\Shoreplan Project Files\Files 3000-3099\19-3052 Pier 25 Dredging Feasibility Study (HPA)\Drawings\3052 -0e.dwg

Project: 19-3052
Scale 1:600
SHOREPLAN

Figure 2.1
Pier 25 Dredging Feasibility Study
Study Limits and Existing Sanitary and Storm Sewers

EASTPORT BLVD

PIER 25

AGRICO

RICHARDSON

HAMILTON RESCUE

HAMILTON ENERGY

PROVMAR

PIER 24

McASPHALT

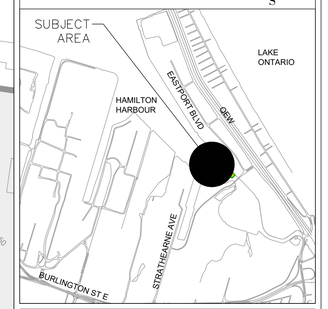
PIER 23

LAKESHORE SANDS

STRATHEARNE AVENUE SLIP

KEY PLAN

SCALE: N.T.S.



GENERAL NOTES:

1. All soundings are shown in metres below International Great Lakes Datum 1985 for Lake Ontario which is 74.2m above sea level.
2. Horizontal Coordinates are referenced to NAD1983, UTM Zone 17.
3. Soundings were taken on Aug. 23, 2019 by S.P. using Single Beam Teledyne Odom Echotrac CVM Surveying Sounder interfaced with SX Blue II DGPS
4. Water level at the time of survey was 1.33m above datum as measured at the Canadian Hydrographic Services Gauge in Burlington.

REVISIONS:

No.	COMMENTS	INITIALS

LEGEND

PORT PROPERTY LIMITS

×9.0 SOUNDING 9.0m DEPTH BELOW CHART DATUM

25 0 Meters 25 50

1:1000

KEY TO DRAWING LOCATION:

NMBR / LCTN DRAWING NUMBER
SHEET NUMBER

DREDGE LIMITS

POINT	NORTHING	EASTING
1	4791605.8	598690.0
2	4791408.7	598874.6
3	4791384.3	598848.5
4	4791426.0	598620.4
5	4791412.0	598589.8
6	4791425.1	598547.6
7	4791491.6	598568.1

HAMILTON-OSHAWA PORT AUTHORITY
Administration Portuaire de Hamilton-Oshawa
605 JAMES STREET NORTH, HAMILTON, ON, L8L 1K1
PH:(905)525-4330 F:(905)525-7258

NOTE:
These soundings are **NOT FOR NAVIGATION**. They are for planning purposes only, and only reflect conditions at the time of the survey. It is the responsibility of the vessel operator to use updated hydrographic charts for navigation of their vessel in the ordinary practice of good seamanship.

PROJECT:	**PIER 25 SOUNDINGS**
DWG. TITLE:	**BATHYMETRIC SOUNDING SURVEY**
SCALE:	**1 : 1,000**
DATE:	**SEPTEMBER 2019**
DRAWN BY:	**S.P.**
CHECKED BY:	**NONE**
DWG. No:	**M-01**
LOCATION:	**s:\engineering\civil 3d projects\p25 soundings\p25 facewall soundings_aug 2019.dwg**

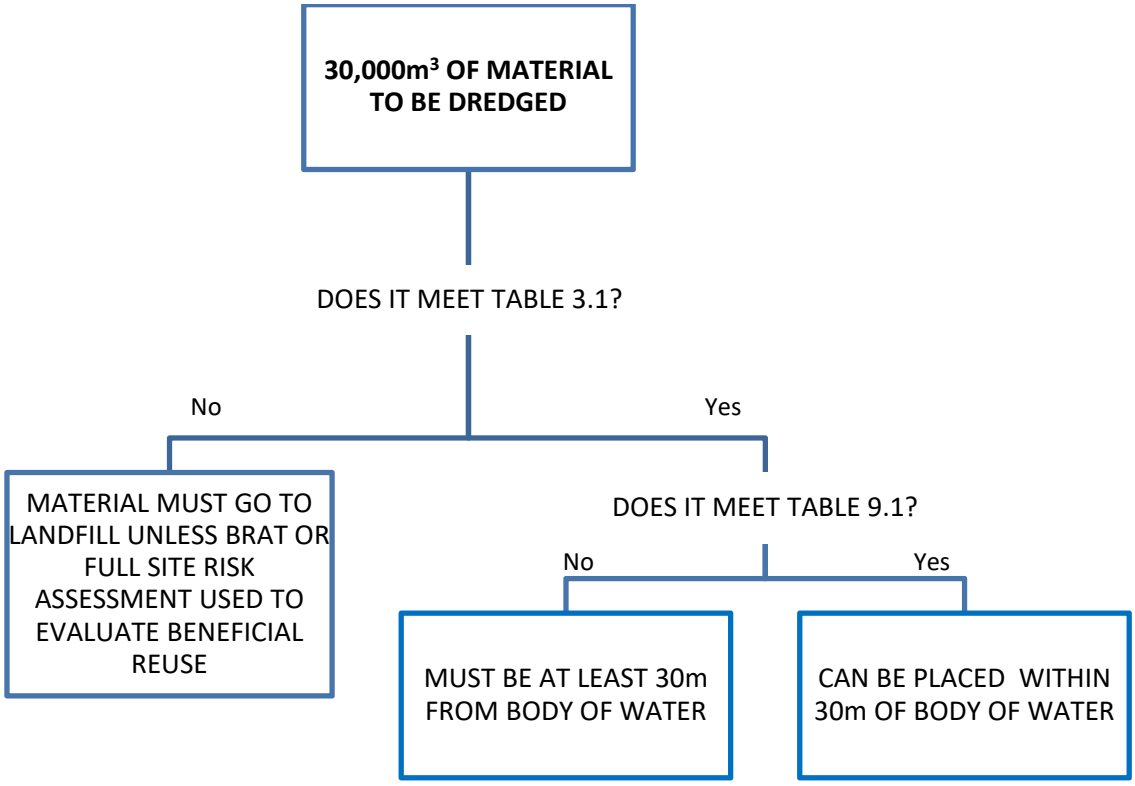


Figure 2.3 Decision Tree for Disposal Options

3 DISPOSAL OPTIONS

Disposal options for the dredgeate depend on the sediment quality and slump. The results of the 2016 sediment sample testing found that the material could be disposed of as non-hazardous waste at a landfill. The material exceeded some of the parameters in Table 3, Full depth generic site condition standards in a non-potable ground water site condition (MECP 2011) and exceeds the new standards set out in Table 3.1, Full Depth Excess Soil Quality Standards in a Non-Potable Ground Water Condition (MECP 2019). We understand that the previous excess material from dredging Pier 25 was placed at Pier 22, a HOPA property.

Sediment testing of the dredge material for the current project should be carried out to assess disposal options. If the testing shows that the dredgeate samples meet Table 3.1 standards, i.e., it can be placed on land at a location 30 m away from the water, City owned disposal sites could be utilized to permanently store the material. City owned disposal sites considered in this investigation are described in Section 3.1. Other City owned or privately owned sites not reviewed in this report may be available. The City's by-law (Fill by-law 03-126) restrictions and any possible exemptions would need to be considered when assessing these other disposal sites.

If the material does not meet Table 3.1 standards, beneficial re-use options should be assessed using BRAT or a full risk assessment could be carried out to modify the standards. These assessments must be carried out by a Qualified Person (as per O.Reg.153/04). Treatment or conditioning options may also be available including the addition of polymers to the dredge material. The viability of treatment or conditioning of the material is highly dependent on contaminants present in the dredgeate determined through testing. These options will also need to be assessed and reviewed by a Qualified Person. Treatment or conditioning will result in additional disposal costs that can only be assessed once testing is completed.

If these other options are not viable, the material it will need to be disposed of at a landfill. Landfill options are discussed in Section 3.2. Other options for disposal are available if the testing shows that the quality of the material has improved significantly. These options include disposing the material closer to the water as confined fill or in the water as unconfined fill.

3.1 Disposal Sites

HOPA has identified several areas at Piers 22 to 25 for dredge material disposal. These sites are being considered for either temporary management of material or permanent disposal.

The sites available as identified by HOPA include:

1. Cell #4 at Windermere Basin
2. Pier 24 Vacant Parcel
3. Former Firestone Site
4. Filled Pond N-2 at Pier 22

Figure 2.1shows the location of each site. The following sub-sections describe the features of each site and its potential for use as a disposal site. Methods for unloading and transporting the

material are discussed. Decanting/drying the material is discussed separately in Section 4. Table 3.1 at the end of this section summarizes the options for permanent storage at each location.

3.1.1 Cell #4 at Windermere Basin

Cell #4 is located to the northwest of Windermere Basin between the basin and the rail line and along the roadway known as Pier 24 Gateway. It was previously evaluated to be used as a temporary storage area for Pier 25 dredge material by Baird (2010). The sediment management plan presented in that report stated that Pier 25 would be dredged using mechanical equipment. The dredgeate would be trucked to Cell 4 where it would be dewatered. Once dewatered, it would be trucked to an appropriate landfill for disposal. Baird proposed expediting dewatering by use of a centrifuge. Odour, dust and noise were identified as potential concerns.

Capacity

HOPA indicated that the expected capacity of this pond is 26,000m^3. This volume was based on information provided by the City indicating that the design volume was noted as 21,000m^3 and that the cell has been dredged an additional 5,000m^3 as proposed in Baird (2010). Subsequently, the City and Hamilton Conservation noted that the cell had not been dredged again. They also advised that the cell could only be filled to an elevation of 75.0m, matching existing grades at the site, because it is in the flood plain. With an estimated area of approximately 12,000m^2 this would indicate that average depth of the material placed at the site could be just over 1.5m for a total volume available of 18,000m^3. During detailed design, a topographic and bathymetric survey to confirm the actual capacity of Cell #4 should be carried out.

Temporary Storage Site

If Cell #4 is considered for a temporary storage site, it is expected that the cell would be filled completely to the existing grade (elevation 75.0m) resulting in a disposal of approximately 18,000m^3. The material will require dewatering before transporting off the site. MECP (2019) provides requirements for soil management that may need to be considered during detailed design.

Permanent Disposal Site

If Cell #4 is considered for permanent disposal, capping is required which will decrease its capacity. If a 0.5m cap layer is assumed, the estimated remaining capacity to store dredge material is less than 12,000 m^3. If the dredge material is contaminated to a degree that the cell would need to be isolated from the water, its capacity is further reduced to levels that do not make this site viable. Additional storage capacity will be needed elsewhere to accommodate the estimated 30,000m^3 dredge material in 2022.

Disposal at Cell #4 requires management of both existing pond water and the excess water from the dredge material. Management of the excess water is described in Section 4.

Loading/Unloading

Cell #4 is located close to the dredge area. Off-loading options for Cell #4 depend on the dredge method used (i.e., mechanical or hydraulic). Two shore connected dolphins on the south side of the dredge area at Pier 24 and near Cell #4 are currently being used for berthing vessels. The shore connections are not adequate for loading trucks. However, they could be utilized for mooring scows and pumping dredgeate across to Cell #4. Additional temporary dolphins may be required depending on the contractor's equipment. A hydraulic pump and pipeline system could be used to transfer the material from the scow to Cell #4. One of the challenges of constructing a pipeline would be crossing the road and railway tracks. This may be overcome by raising the pipeline over the road and railway track. The contractor would need to design and build modifications to the dock, and pipeline and pump system as part of their contract because the design requirements would be based on their equipment. Given the small dredgeate storage volume these structures would support, it is likely that this option is cost prohibitive unless they could be utilized for offloading the remaining dredge material for transport to other locations or used for future dredge operations.

Offloading the material into trucks is another option. A dock for unloading the dredge material could be provided by constructing a temporary dock southwest of the dredge area near Pier 24. Travel required from the potential unloading area to Cell 4 disposal area is less than 200m. Alternatively the existing dock at the north end of Strathearne Ave could be used to could be utilized. The travel distance increases significantly to approximately 1.5km. For disposal at Cell #4, the material would be loaded into watertight trucks and transported to the disposal site. A temporary watertight container located at the dock would likely be required to store a small quantity of material to manage trucking and dredging timing.

3.1.2 Pier 24 Vacant Parcel

This vacant parcel of land is located on the west side of Pier 24 Gateway across the road from Cell #4. This HOPA property is adjacent to Pier 24 which is currently leased to McAsphalt. An access road to Pier 24 runs along the north side of the property.

Capacity

The available property area is approximately 8,900m^2 and well vegetated. Dredgeate could be placed on the portion of the property that is 30 m away from the water which reduces the footprint available for placing material. Given the relatively flat angle of repose of dredge material, the volume of material that can be stored at this site is reduced. Perimeter retaining walls could be constructed around the property to increase the storage volume. The estimated remaining storage area is approximately 7000m^2 with a capacity to store approximately 8400m^3 of material if the walls are designed to retain material 1.2m high. Higher walls could be constructed to increase capacity.

Excess water will need to be managed at the site. The volume of water to be managed will depend on the dredge method. Management of the excess water is described in Section 4.

Temporary Storage Site

We understand that due to HOPA's lease obligations this site can only be used as a temporary handling or storage site. If the dredgeate meets Table 3.1 standards (MECP 2019) the material can be stored on the site. If the material does not meet Table 3.1 standards, an impermeable storage facility could be constructed to store and dewater the material until it is transferred to a permanent disposal site. Its close proximity to the work area makes this site ideal for temporary storage. Creating an impermeable storage facility would reduce the storage capacity of the site.

Loading/Unloading

This location directly south of the dredge area is ideal if off-loading activities can be accommodated along the shoreline. The same off-loading facilities described in Section 3.1.1 for Cell #4 would apply here for both hydraulic and mechanical dredging. An access road to Pier 24 runs along the north side of the property. Therefore the material would need to be either pumped or trucked across the road from the dock. If off-loading activities are restricted to the pier at the north end of Strathearne Ave., the travel distance increases significantly to just over 1.5km.

3.1.3 Former Firestone Site

The former Firestone property is located on the west side of Hobson Road north of the City resource recovery station. The land at the Firestone site previously held a building which was demolished to ground level. The foundation, basement and ground floor slab of the building remain. The basement of the building is outlined on Figure 2.1. A site visit revealed holes cored in the slab and open areas such as stair wells covered with steel plates.

Permanent Disposal Site

Using the basement of this site as a permanent disposal site has been rejected by the City's Legal, Real Estate and Waste divisions. We agree with this decision at this time on the basis that the contents of the basement are unknown. We understand that water has filled the basement to the level of the harbour. Care would need to be taken to ensure water from dredgeate run off and potentially contaminated materials did not mix with the water in the basement which could contain contaminants from the equipment and materials stored in the basement of the building.

Additionally if dredge material were permanently placed at this site it may restrict future use of the site. With additional planning the site could be remediated, removing the concrete cover on the basement, clearing the area and treating any contaminated water that is found in the basement. Once cleared, this site could be used to store future dredgeate. Future dredging projects will need to reassess this option with the relevant City stakeholders.

Temporary Storage Site

Currently, the best use of this site is for temporary handling or storage of the material in the area outside the basement. However, we understand that currently this option has also been rejected

by the City. If revisited, the area in the southeast corner that sits outside the basement is approximately 8,000m^3 and provides an area that could be used to dry approximately 8,000-10,000m^3 of dredge material for offsite disposal. Currently this site is being leased to HOPA by the City. We understand that if the City were to use this site for temporary storage of dredge material, the City's Real Estate department would need to approve the proposed use as there are environmental implications for this site.

Loading/Unloading

Access to the site would need to be provided from the Strathearne Ave. slip where loading and initial decanting would occur. Temporary handling would most likely require a dedicated area for managing excess water from the dredge material which is described in Section 4.

3.1.4 Filled Pond N-2 at Pier 22

Pond N-2 is located on the west side of Pier 22 approximately 250m west of the dock wall. The pond was previously used to store dredge material and capped. HOPA indicated that the cap is a 2m thick layer of clean fill material. The pond area is approximately 16,000m^2.

Capacity

The cap material would need to be removed prior to placing material at this site. Up to 32,000m^3 of cap material would need to be excavated to place dredgeate at this site. The excavated cap material could be used to create a perimeter berm and remaining cap material either removed or reused as cap material in the future. It is anticipated that 30,000m^3 of material could be stored at the site.

Temporary Storage Site

This HOPA property site is only available for temporary storage area of the dredge material while it is dewatering. City would need to lease this property from HOPA while the material is drying. The drying or dewatering at this site would be passive. The time to dewater the material will impact the cost of using the site. Expediting this process is possible with treatments (additives) or mechanical dewatering systems (centrifuge). Additives could be used to expedite the process but may increase landfill costs and may eliminate the possibility of beneficial reuse according to MECP (2019). Further discussion of dewatering is discussed in Section 4.

Table 3.1 - Permanent Placement Options

	Permanent Placement			
	City Property		HOPA Property	
	Cell #4	**Firestone Site**	**Pier 24**	**Pond - N2**
Meets Table 9.1	< 12,000m^3 capacity with cap (0.5m min.) ~18,000m^3 to be disposed of elsewhere.	Rejected for any use by Real Estate	Not Available	Not available
Meets Table 3.1	limited capacity (<10,000m3) and requires cap and structures to separate dredgeate from water. ~20,000m^3 to dispose of elsewhere			

Table 3.2 Temporary Storage Site Options

		Temporary Storage for Dewatering			
		City Property		HOPA Property	
		Cell #4	**Firestone Site**	**Pier 24**	**Pond - N2**
	Passive de-watering	Isolation from harbour would allow passive drying. Requires significant infrastructure to create a water tight barrier limiting capacity.	Rejected for any use by Real Estate	Requires construction of walls min.1.2m high. Limited capacity (<10,000 m^3)	Requires removal of cap and construction of 2m high berm to accommodate all dredge material
Active De-watering	Centrifuge	**Not Isolated** This is a flood plain and material will remain wet without isolation. Centrifuges may be used at a high cost for the equipment and a concrete pad and only small quantities would be accommodated.		Could provide space for centrifuge but would require new concrete pad, and potentially permanent lease to operate for small quantities more often.	This would require building a concrete pad on a site that is intended to be returned to HOPA. Significant infrastructure would be built for temporary purposes.
	Additives			Additives would require more space which is already limited	Could use additives to limit dry time. The depth of the area to be filled could be increased to accommodate a larger volume.
		All contaminated material would be sent to a landfill unless a beneficial reuse could be established using BRAT or site specific risk assessment. If the material meets Table 3.1 or 9.1 it could be used by the City.			

3.2 Commercial Landfills

The sediment sample testing from 2016 indicated that the material could be disposed of offsite at a landfill as non-hazardous waste. Disposing of the material at a registered landfill requires that the material also meet slump requirements. The material must have a slump less than 150mm. The dredgeate may require dewatering or drying at a temporary storage or handling area to achieve that slump. Options for dewatering are discussed in Section 4.

In 2015, HOPA reviewed two potential local landfills to dispose of the dredgeate. These sites included Stoney Creek Regional Landfill currently operated by Terrapure Environmental and Niagara Waste Systems Landfill operated by Walker Environmental. At the time, Stoney Creek Landfill was anticipating reaching its capacity and would be unable to accept the material. However, we understand the facility has recently expanded its capacity and may be available for disposal of material when the next dredge at Pier 25 occurs. Niagara Waste Systems Landfill had capacity in 2015 and currently has capacity to accept the material.

4 MANAGEMENT OF EXCESS WATER

The dredge material will contain excess water. Water from the dredging operation will collect in the scow and water will be entrained in the dredge material. It is estimated that mechanical dredging can contain 50 to 60% water. If hydraulic dredging methods are used high volumes of water will need to be managed. The estimated water content for hydraulic dredging is between 65 to 90%. It is anticipated that the dredging will be carried out with mechanical equipment.

Based on the sediment and water sample testing results during detailed design, water collected during the dredging operation may need to be contained, sampled and tested (e.g., quality, total suspended solids). Appropriate management options will be determined by comparing the test results to the Sewer Use by-law and Provincial Water Quality Ontario Standards (PWQO) and if it is determined that the waste water will not be deleterious to fish if the water is being discharged to fish bearing waters. Plans developed to manage the excess liquid will need to be prepared by a Qualified Person. Management options may include discharge to the local sanitary sewer, storm sewer, vacuum truck disposal, and onsite treatment and discharge back to the harbour.

The sewer options depend on disposal or temporary storage location utilized for the project. Figure 2.1 shows the local sanitary and storm sewer lines provided by HOPA. Excess water at Cell#4 could directed to either of City and HOPA sanitary and storm sewers. Excess water at Pier 24 could be directed to either HOPA's storm sewer or the City's sanitary sewer and Pond N-2 water could be directed to HOPA sanitary or storm sewer lines.

Eastport (HC017) Wastewater Pumping Station is in close proximity to Pier 24 and Cell#4. It has an existing MECP ECA which defines and limits pump station capacity. Water directed to HC017 must comply with the MECP ECA for the station and meet the City's Sewer Use by-law. Use of the local pump station is also be dependent on available capacity at the time of dredging. The pumping station has limited capacity during high water level periods on Lake Ontario. It may only be available for use during periods of low precipitation and low lake levels. Discharge to the station during high precipitation events will not be facilitated by Plant Operations.

The remaining fine grained dredge material will have a high water content even after the surface water has been decanted. The material must have a slump less than 150mm in order to be considered as solid waste for transfer to a landfill. If it does not meet this requirement it is considered liquid waste. If the material is being disposed of at a landfill, slump tests will be carried out prior to transport offsite. A temporary storage or handling area will likely be required to dry or condition the material for acceptance at a landfill or for beneficial reuse. Potential temporary handling areas are located at the vacant property at Pier 24 and Pond N-2.

The dredge material will need to be dewatered passively or actively. The following describes methods for passively drying the material or actively drying the material by conditioning, filtering through a membrane, or centrifuge to meet slump requirements.

4.1 Passive Drying

Passive drying of the material primarily relies on evaporation to reduce water content and solidify the material. The dredgeate is spread out over an area for drying. The thicker the layer of material the longer time it will take to dry. The material should be graded such that water flows away from it into an area for collection and removal. Depending on the quality of the water collected, the water may need to be tested and/or treated. Once the excess water meets criteria for disposal, it can be returned to the harbour, local sewers or vacuumed trucked for offsite disposal.

Passive drying can be a slow process taking months to years. The temporary storage areas would be fully utilized over that period of time. If the material is found to exceed Table 3.1 (MECP 2019), an impermeable containment area would need to be constructed to facilitate drying at the temporary storage sites (Cell 4, Pier 24 and Pond N-2). This could consist of placing a clay or bentonite layer on the ground and constructing lined retaining walls to prevent loss of material from the handling area. These measures increase the drying time because water can only evaporate from the surface and cannot be absorbed into ground.

The stock pile should be monitored during the drying process. The upper layer of material will dry faster creating a crust over the lower material. This crust may slow the drying of the bottom material. A drain system could be installed within the handling area to help expedite dewatering from the bottom sediments. This water would need to be managed similar to the other collected water. Alternatively, the upper layer of the stock pile could be taken away to a landfill when it meets the slump criteria. This would allow drying of the bottom sediments through evaporation. Detailed design should consider means to direct water away from the stock pile for treatment and disposal and the need for a layer to prevent infiltration based on the results of the testing and site requirements.

If the material takes longer to dry than anticipated and the extended period has the potential to impact project costs, active drying techniques for a portion of the material may be considered.

4.2 Active Drying

Active drying is another method to remove water or solidify the material resulting in increased slump. Several methods exist including adding commercially available absorbents, adding sand or wood chips, filtering the material through a Geotube or similar product to remove water, or a mechanical centrifuge.

Previous dredge plans considered a centrifuge method as a feasible method to dewater the material. This method was discussed with Terrapure Environmental (Terrapure) who provides both hydraulic dredging and centrifuge drying services to manage dredgeate. While a centrifuge may be used with material dredged with mechanical or hydraulic equipment, Terrapure recommended hydraulic dredging because of the high water content. Using hydraulic dredging equipment, harbour bottom sediments and water are pumped into a scow. The material is then pumped to shore where it is placed in a mixing tank to create a slurry for the centrifuge. The slurry

needs to have a solid content in the order of 5 to 20% which means additional water may need to be added to the dredgeate in the tank. Polymers are also added to the slurry to facilitate flocculation. The flocculated slurry is injected into the centrifuge. Three centrifuges were recommended for the estimated volume of dredge material and production rate of the hydraulic dredge equipment.

Processing this material will require management of a large volume of water. The processing area will need to include a mixing tank, centrifuges, and area to manage the dried material and centrate (by-product water). Treatment facilities for the centrate may also be required depending on the by-product water quality. A centrifuge supplier provided an example of the processing area layout which is shown in Figure 2.1

A centrifuge system can either be supplied and operated by a contractor such as Terrapure or purchased and operated by the City. A preliminary cost estimate for this work is provided in Section 6.3.3. A preliminary cost estimate from a manufacturer for purchasing a centrifuge system including three centrifuges, mixing tank, centrate holding tank, and concrete pad is between $2.M and $2.5M. This does not include site improvements or operating cost which will further increase the cost of the system. The area south of Cell #4 was previously identified as an area to operate a centrifuge system. The site is equipped with electrical service for this operation. However, additional site improvements would need to be constructed in order to operate the centrifuge system at this site.

The current quality of the dredge material and decanted water is not known at this time. The additional volume of water needed to create the slurry increases the volume of water substantially therefore increasing project costs. If the dredge production rate is not matched to the centrifuge production rate, there can be standby time which also increases project costs.

All of the active drying methods need a temporary handling area to manage the material. The space required depends on the method utilized. Each increases the cost of handling by the cost of the added equipment and materials and by increasing the volume of material to be disposed of offsite (except with the centrifuge option). If the material needs to be removed quickly to a landfill these methods should be explored. MECP (2019) has special conditions for dewatered/solidified soil which should be considered when assessing active drying methods which may restrict the reuse site to being 30 metres way from a water body. If time is not critical and the temporary storage areas are not needed for the next dredge or other operations, we recommend passive drying as the preferred alternative.

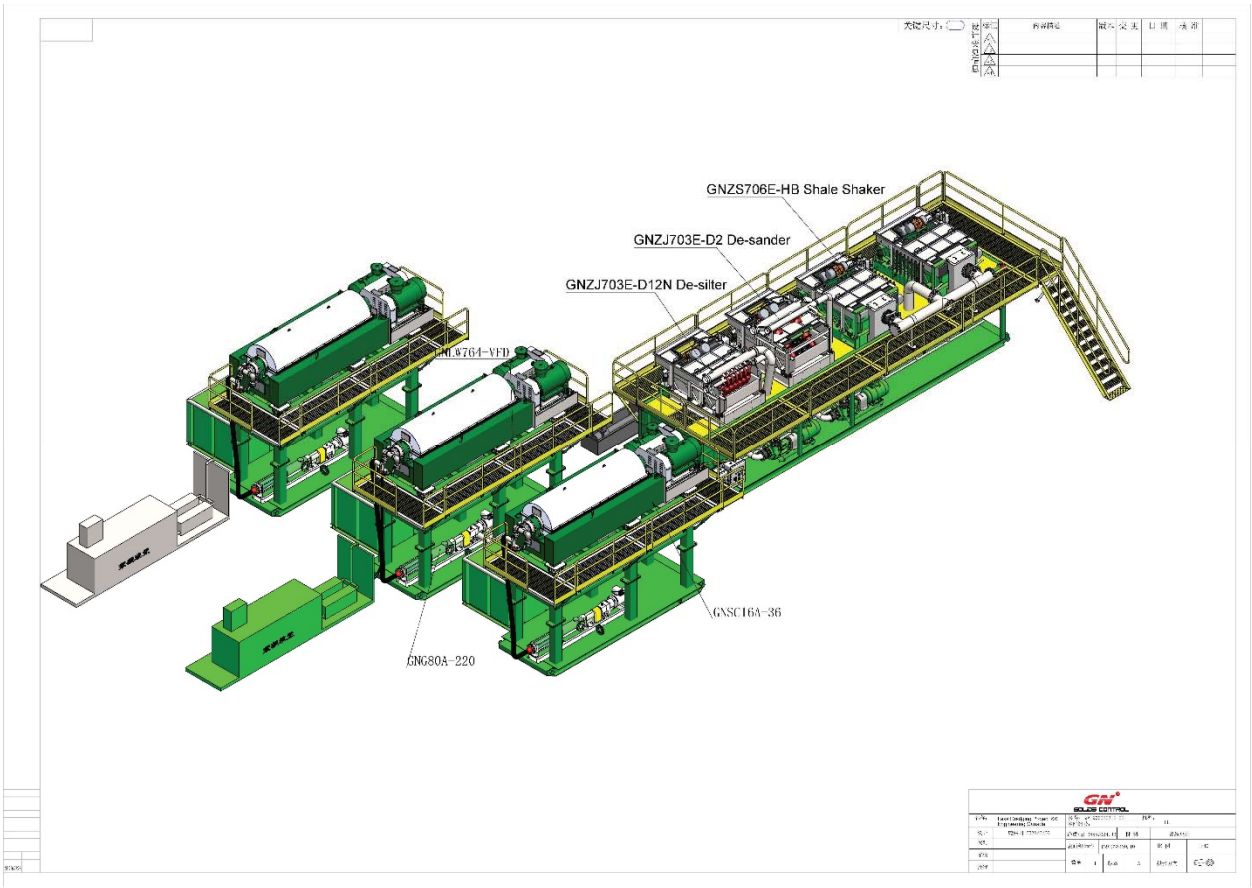


Figure 4.1 Centrifuge System

5 PERMITS AND APPROVALS

Dredging Hamilton Harbour requires the project to be reviewed and/or approved by the following federal agencies:

- Transport Canada (TC)
- Fisheries and Oceans Canada (DFO)
- Hamilton – Oshawa Port Authority (HOPA)

Provincial and Municipal review may include:

- Ministry of Natural Resources and Forestry (MNRF)
- Ministry of Environment Conservation and Parks (MECP)
- Hamilton Region Conservation Authority (HCA)
- City of Hamilton

Organizations to be informed of the project include:

- Hamilton Remedial Action Plan (RAP)

A brief description of each agencies review and/or approval process is provided below.

5.1 Transport Canada

Transport Canada (TC) reviews projects with respect to the Navigation Protection Act. Works that are classed by TC to fall under the “designated works” under the NPA (that is complying with the requirement of the Minor Works Order) may proceed without Notice of the Minister as long as they comply with the legal requirements. Dredging is included under the minor works order if *the works are done in order to maintain the width and depth of the navigable waters; all dredge materials are disposed of above the ordinary high-water mark or in the water where the disposal is authorized by or under an Act of Parliament; the works do not use suction dredging that involves the use of floating or submerged pipes; the works have no cables that cross over or through any portion of the navigable water; and the works do not include blasting*. If any of these conditions cannot be met, the project will need to be reviewed by Transport Canada.

5.2 Fisheries and Oceans Canada

Fisheries and Oceans Canada (DFO) may review the project under the Fisheries Act. The Fisheries Act states that “No person shall carry on any work, undertaking or activity that results in the harmful alteration or disruption, or the destruction, of fish habitat”. In the past maintenance dredging was considered an activity that did not require review if certain conditions could be met. DFO has recently developed an interim code of practice for maintenance dredging which outlines the best practices for routine maintenance dredging. DFO considers routine maintenance dredging to be dredging that “*occurs at least once every 10 years and involves the mechanical removal of accumulated sediment from the bed of a water body with clamshell buckets, draglines or backhoes, suction dredges). Routine dredging helps to maintain the design depths of navigation channels, harbours, marinas, boat launches, docking sites and port facilities that*

contribute to tourism, recreation and the transportation of goods." The project does not require review by DFO if routine maintenance dredging has been completed once in the last 10 years; a test for polychlorinated biphenyls (PCB) content of the substrate to be dredged was completed within the last 5 years and no species at risk (SARA) or critical SARA habitat is found in the area; the material will be disposed and stabilized on land following provincial legislation or disposed of in an approved Marine Disposal and Dumping Site; and all applicable measures in the code of practice and all other measures to protect fish and fish habitat are incorporated in the project.

This project could meet all of these conditions and not require review. Currently, no SARA species are identified in the dredge area. It is anticipated that sediment sampling and testing which includes PCBs will need to be carried out prior to the next dredge to confirm the presence of PCBs.

5.3 Hamilton – Oshawa Port Authority

Any work within the Port will require review by HOPA. The Hamilton Harbour Master will need to be informed of the project timing in order to notify vessels within the port and manage vessel traffic.

5.4 Ministry of Natural Resources and Forestry

The Ministry of Natural Resources and Forestry (MNRF) reviews projects under the Public Lands Act. It is our understanding that the project is within the HOPA's water lot and no Public Lands Act Work Permit is required.

MNRF is also responsible for establishing in-water work construction timing windows. It is our experience that the in-water work window is between July 1 and September 14 in Hamilton Harbour. We recommend contacting MNRF to confirm site specific fisheries timing windows near the time of implementation. The project is within Federal jurisdiction therefore DFO will establish the in-water work windows. It is our past experience that DFO uses the same timing windows as MNRF in this area. This will need to be confirmed during detailed design.

5.5 Ministry of Environment Conservation and Parks

MECP reviews project under the Endangered Species Act. A review of the SARA data base indicates that there is no SARA near the work area. To ensure that the projects does not impact Species at Risk (SARA) we recommend pre-consultation with MECP to determine the possibility of SARAs in the area.

5.6 Hamilton Conservation Authority

Ontario Regulation 161/06 allows the Hamilton Conservation Authority to grant permission for development within the regulated area. Hamilton Harbour is within HOPA's water lot which is under Federal jurisdiction. If the work is carried out by HOPA and the material is disposed of on HOPA property, review by HCA is not required. If the project is completed by the City and/or the material is disposed of on City owned property within HCA regulated area, HCA would review the project and provide a work permit. Preliminary consultation with HCA is recommended prior to

detailed design. HCA also recommends that any fill material be placed outside of the flood and erosion hazards of creeks and harbour.

6 DREDGE AND DISPOSAL MANAGEMENT PLAN

The following outlines options for dredging and disposing of the estimated 2022 dredge volume of 30,000 m^3. Three options for disposal management are presented. The first option assumes that the material meets Table 3.1 Full depth excess soil quality standards in a non-potable ground water condition (MECP 2019) or standards developed using the BRAT tool or a site specific risk assessment. The other two options assume that the material will disposed of at a landfill. The cost of each component of the work is presented for each option and summarized in Tables 6.1 to 6.3. These estimates do not include design including development of site specific standards, contingency allowances or taxes. The estimates are based on the construction costs from recently tendered contracts in the Greater Toronto and Hamilton Area. Recent high water levels on the Great Lakes have increased the cost of marine construction noticeably and may influence the cost of future work.

6.1 Pre- dredging investigations

Prior to commencement of the project, dredge material and water samples from the dredge material and from Cell #4 should be taken and tested to determine the soil and water qualities. MECP (2019) provides direction on sampling and reporting requirements. It also provides direction on documenting the reuse plan. The soil sample qualities will need to be compared to the soil standards in MECP (2019). Water samples will need to be compared to the requirements of the City's Sewer Use By-Law. Results of these tests will determine the appropriate option from those presented in this report.

A topographic and bathymetric survey of Cell #4 should be conducted to determine the actual capacity of the cell should it be found that the dredge material qualities are within the limits appropriate for Cell #4 design. An estimate of the potential volume of water Cell #4 contains should also be carried out in order to estimate the volume of water that will need to be managed. We understand that it may be possible to dispose of the water from Cell #4 by discharging it back to the harbour, however this will need to be confirmed with testing.

If Pier 24 or Pond N-2 are considered as a temporary storage site a topographic survey of the area should be conducted in order to prepare a base plan for the project

A survey of the dredge area should be conducted to confirm the quantity of material to be dredged and to prepare the contract drawings.

6.2 Dredge Operation

Disposal Options 1 and 2 assume that the harbour bottom is mechanically dredged using an excavator or crane operating from a barge to fill scows with dredge material. Open buckets will be used to minimize the volume of water that will need to be managed and the work will need to be carried out within a turbidity curtain. A loading dock area will be needed to load the material from a scow to trucks where it is transported to either a permanent disposal site or temporary storage area. As discussed in Section 3 this could either be at the Strathearne Ave dock or Pier 24. Pier 24 requires construction of mooring dolphins and a dock. The estimated cost of

constructing a temporary dock and other site preparation work for the dock at Pier 24 is $250,000. Site preparation and restoration at Strathearne dock includes constructing a temporary watertight bin to transfer the material from scow to truck. The estimated to cost of site preparation and restoration at Strathearne dock is $60,000. Security may be required during the dredging operation. Its cost is not included in the estimate.

Based on recently tendered projects, the estimated cost of the dredging operation including mobilization, demobilization, turbidity curtains, preparation and restoration of the dock at Strathearne Ave. and lease of the slip from HOPA is approximately $3.2M. This estimate assumes Strathearne Ave. is utilized as the offloading dock for the dredge operation. It would increase to $3.4M if Pier 24 were utilized. Table 6.1 provides a breakdown of the preliminary estimated cost of the dredging operation. Costs associated with decanting the water are not included but are included with the management of the excess material and liquid.

Table 6.1 Dredging Operation Cost Estimate

		Total Quanity	Units	Unit Rate	Units	Strathearne Dock	Pier 24
Mechanical Dredge Operation							
1	Mobilization/ Dembilization	1	L.S.	100,000.00	$/each	$ 100,000.00	$ 100,000.00
2	Turbidity Curtain	1	L.S.	50,000.00	$/each	$ 50,000.00	$ 50,000.00
3	Mechanical Dredging	30000	cu.m	100.00	/ cu.m	$ 3,000,000.00	$ 3,000,000.00
4	Loading/Unloading Area						
a)	Pier 24	1	L.S.	250,000.00	$/each		250,000.00
b)	Strathearne Slip	1	L.S.	60,000.00	$/each	$ 60,000.00	
5	HOPA docking fees (3 months)	0.25	years	10,000.00	$/year	$ 2,500.00	$ 2,500.00
5	HOPA area fees (300m2 for 3 mor	75.00	m2/year	20.00	$/m2/year	$ 1,500.00	$ 1,500.00
				Sub Total (Dredge Operation)		**$ 3,214,000.00**	**$ 3,404,000.00**
				30% Contingency		$ 964,200.00	$ 1,021,200.00
					Total	**$ 4,178,200.00**	**$ 4,425,200.00**

6.3 Disposal Options

Three options for disposal of the material are described below. Options 1 and 2 assume the sediment quality is appropriate for disposal or temporary storage in Cell #4 with minimal modifications to the cell. The first option considers permanent disposal of the material in Cell #4. The second is temporary storage at Pond N-2 and offsite disposal at a landfill. Option 3 utilizes the land south of Cell #4 to operate a centrifuge and direct transport of the material to a landfill.

Temporary storage area could be provided at Pier 24. However, the volume of material that can be stored at this site is less than the dredge quantity. Active drying techniques would need to be used to accelerate the transfer of the material to the land fill. This increases the disposal costs significantly. Use of these properties for temporary storage is not recommended at this time due to cost and no further discussion is provided.

6.3.1 Option 1 – Permanent Disposal at Cell #4

In order to dispose of material at Cell #4, the cell will need to be cleared of vegetation, the existing outlet would need to be closed and the cell dewatered. Our estimate assumes that water in Cell #4 will be transported to and treated at a waste water treatment plant. This will need to be confirmed. Section 4 provides other options that could be considered. Once the site is prepared to accept material, material would be trucked in sealed boxes from Strathearne dock to Cell #4. An excavator will be used to grade and shape the material in the cell.

Cell #4 is estimated to accept 12,000 m^3. This is not enough capacity; the surplus material would need to be taken to a landfill. Currently the unit cost for disposal at a Waste Systems (Walker Environmental) is $50 per tonne. However this rate and the availability at the preferred landfills is not guaranteed and should be confirmed closer to the intended dredge date.

Decanted excess liquid from the dredgeate and water currently in the cell will need to be managed. Our estimate assumes that 100% of the water from the cell and 30% of the volume of dredge material will be water that needs to be managed. This option assumes that excess liquid can be directed and treated at a local waste water treatment plant. The cost associated with treatment is the cost of pumping the liquid across the river to the pumping station. The unit price is estimated to be $0.1 per litre. If testing of the excess liquid finds that it has contaminates or suspended solids that exceed the limits of the City's by-law or if the capacity of the pumping station cannot accept the liquid, the excess liquid will need to be transported by vacuum truck to another facility that will accept this liquid waste. Alternatively the contractor could treat the liquid onsite and return it to the harbour. Vacuum trucking and onsite treatment are considered to have similar costs of $0.6 per litre.

After the material has dried sufficiently to allow access to the disposal area, the site will need to be restored. This will include capping the material and may include seeding or planting other vegetation. The estimate includes an allowance for restoration.

The remaining 18,000m3 of material will be temporarily stored at Pond N-2. The existing cap material will need to be removed and reused for berm material to store the dredge material. The material would be transferred from Strathearn dock to the prepared area and using excavators the material would be placed in berms to facilitate drying. Passive drying is estimated to take 1 year, after which the material would be transported to a landfill for disposal. Pond N-2's cap would be restored. The estimated cost of permanently disposing of the dredgeate at Cell #4 is $5.9M not including a contingency or taxes. Table 6.2 shows a breakdown of the disposal costs for this option. Table 6.1 provides the dredging operation costs. The total estimate cost of the project (dredging and disposal) is $9.1M.

Pond N-2 would be leased from HOPA until the material is dried. Our estimate assumes the whole site is leased. The area required and leasing cost will need to be confirmed at detailed design. We estimate the cost of leasing to be in the order of $320,000 for one year. Alternative methods for drying are discussed in Section 4. During detailed design it may be determined that a larger quantity of material may be stored at Cell #4 and or a beneficial reuse of the material may be possible which could reduce landfill costs.

Table 6.2 Permanent Disposal at Cell #4 and Landfill

		Total Quantity						Unit Rate		Cell 4 Permanent Disposal + Temporary at Pond N-2 + Landfill
Trucking										
a)	Dock to local storage site (Cell 4, Pond N2, Pier 24)									
	Trucks (loading and travel time)	12000	cu.m	8	m3/truck	375	hrs	100	$/hr	$ 37,500.00
	Excavator at Slip (time to load trucks)					375	hrs	200	$/hr	$ 75,000.00
	Trucks (loading and travel time)	18000	cu.m	8	m3/truck	562.5	hrs	100	$/hr	$ 56,250.00
	Excavator at Slip (time to load trucks)					562.5	hrs	200	$/hr	$ 112,500.00
e)	Local storage site to Landfill									
	Trucks (loading and travel time)	18000	cu.m	8	m3/truck	3375	hrs	100	$/hr	$ 337,500.00
	Excavator (time to load trucks)					562.5	hrs	200	$/hr	$ 112,500.00
Permanent Disposal Site (Cell 4)										
1	Site Preparation - vegegation and water	1	LS					50000	$/each	$ 50,000.00
2	Dewater from Cell 4									
	Sewer	12000	cu.m	100	% water	12000000	litres	0.10	$/l	$ 1,200,000.00
3	Decanted Water from Dredgeate									
	Sewer	30000	cu.m	30	% water	9000000	litres	0.10	$/l	$ 900,000.00
4	Cap Material	12000	sq. m	0.5	m	60000	m3	50	$/m3	$ 600,000.00
5	Site Finishing	1	LS					50000	$/each	$ 50,000.00
Temporary Storage Area (Pond N2 + Passive Drying)										
1	Access and Site Preparation	1	LS					25000	$/each	$ 25,000.00
2	Cap Removal, Berm, and Cap Restoration	32000	cu.m					10	$/m3	$ 320,000.00
3	Leasing (1 year)	16000	sq.m					20	$/m2	$ 320,000.00
4	Placement and Management	18000	cu.m					10	$/m3	$ 180,000.00
5	Site Restoration	1	LS					10000	$/each	$ 10,000.00
Landfill - Permanent Disposal										
1	Landfill Tipping Fees (Dry dredge material)	18000	cu.m	1.7	t/m3	30600	tonnes	50	$/tonne	$ 1,530,000.00
					Sub Total (Permanent and Landfill Disposal)					**$ 5,916,250.00**
								30% Contingency		$ 1,774,875.00
									Total	**$ 7,691,125.00**

6.3.2 Option 2 – Temporary Storage at Pond N-2 and Disposal at a Landfill

This option includes transferring all of the material from Strathearne dock to Pond N-2 for temporary storage. The Pond would need to be prepared. The cap on the Pond will need to be removed and used to form a berm. The dredge material would be trucked from Strathearne dock. An excavator would be used to grade and shape the material in order to collect decanted water. No additives or materials are added to the dredgeate to improve slump of the material for faster transport to the landfill. After the material has dried sufficiently (2 years) to meet the slump criteria, it will be transferred to a landfill for permanent disposal. Decanted liquid could be managed the same way as described in Option 1.

Once the material has met the slump criteria, it will be excavated from the pond and transferred by truck to a landfill. Pond N-2 would be restored to a condition agreed to with HOPA.

The estimated cost of this disposal option is $5.8M not including a contingency allowance. Table 6.3 provides a breakdown of the disposal costs for this option. Dredging operation costs are provided in Table 6.1. The total cost of the project (dredging and disposal) is $9M without a contingency allowance. Additional costs would be incurred if the additives, geotubes or bulking materials (sand or wood chips) were added to the dredgeate to accelerate transfer to the landfill.

Pond N-2 would be leased from HOPA until the material is dried. The whole site would be utilized for this work. The area required and leasing cost will need to be confirmed at detailed design. We estimate the cost of leasing to be in the order of $640,000 for two years. Alternative methods for drying are discussed above. Leasing costs should also be considered in detailed design. We also note that following testing a beneficial reuse of the material (MECP 2019) may be possible which could reduce landfill costs.

Table 6.3 Temporary Storage at Pond N-2 and Disposal at a Landfill

		Total Quantity						Unit Rate		Total Cost of Item	Temporary at Pond N-2 + Landfill
Trucking											
a)	Dock to local storage site (Cell 4, Pond N2, Pier 24)										
	Trucks (loading and travel time)	30000	cu.m	8	m3/truck	937.5	hrs	100	$/hr	$ 93,750.00	$ 93,750.00
	Excavator at Slip (time to load trucks)					937.5	hrs	200	$/hr	$ 187,500.00	$ 187,500.00
e)	Local storage site to Landfill										
	Trucks (loading and travel time)	30000	cu.m	8	m3/truck	5625	hrs	100	$/hr	$ 562,500.00	$ 562,500.00
	Excavator (time to load trucks)					937.5	hrs	200	$/hr	$ 187,500.00	$ 187,500.00
Temporary Storage at Pond N-2											
1	Access and Site Preparation	1	LS					25000	$/each	$ 25,000.00	$ 25,000.00
2	Decanted Water from Dredgeate										
	Sewer	30000	cu.m	30	% water	9000000	litres	0.10	$/l	$ 900,000.00	$ 900,000.00
3	Cap Removal, Berm, and Cap Restoration	32000	cu.m					10	$/m3	$ 320,000.00	$ 320,000.00
4	Leasing (2 years)	16000	sq.m	2	years			20	$/m2	$ 640,000.00	$ 640,000.00
5	Placement and Management	30000	cu.m					10	$/m3	$ 300,000.00	$ 300,000.00
6	Site Restoration	1	LS					10000	$/each	$ 10,000.00	$ 10,000.00
Landfill - Permanent Disposal											
1	Landfill Tipping Fees (Dry dredge material)	30000	cu.m	1.7	t/m3	51000	tonnes	50	$/tonne	$ 2,550,000.00	$ 2,550,000.00
					Sub Total (Permanent and Landfill Disposal)						**$ 5,776,250.00**
								30% Contingency			$ 1,732,875.00
									Total		**$ 7,509,125.00**

6.3.3 Option 3 – Centrifuge and Disposal at a Landfill

This option includes hydraulically dredging and transferring of the material to a centrifuge system where it is dried and disposed of at a landfill. The centrifuge system including premixing tanks for flocculation would be temporarily operated on City owned property south of Cell #4. Site preparation would include constructing a concrete pad to set up the centrifuge system. Dried dredge material would be trucked to a landfill immediately after processing. Centrate would be managed the same as the decanted water in Options 1 or 2 by transporting and treating it at a

local treatment plant. The quality of the centrate will need to be determined to see if it meets the City's by-law during detailed design.

The estimated cost of hydraulic dredging is $3.6M and disposal is $7.4M not including a contingency allowances. Table 6.4 shows a breakdown of the dredging and disposal costs for this option. The total cost of the project is $11M without a contingency allowance. The cost estimate assumes that the contractor will provide all equipment materials and labour to carry out the work including operation of the centrifuge. It does not include operational costs such as power consumption, maintenance of equipment or site security. Additional costs would be incurred it were found that the centrate cannot be disposed of in the local sanitary sewer. This cost estimate was prepared with the assistance of Terrapure Environmental. The information they provided included production rates. Downtime for this operation is difficult to estimate because it will depend on the weather, environmental restrictions (in-water work windows) and equipment issues. Our estimate includes 30% downtime.

Table 6.4: Centrifuge and Disposal at a Landfill

			Total Quantity						Unit Rate		Total Cost of Item	Hdyraulic Dredge and Landfill
City Property South of Cell 4												
1	Access and Site Preparation		1	LS					50000	$/each	$ 50,000.00	$ 50,000.00
2	Reinforced Concrete Pad + Base		1000	sq.m	0.2	m	200	m3	1000	$/m3	$ 200,000.00	$ 200,000.00
3	Hydraulic Dredge											
	Mobilization/Demobilization		1	LS					60000	$/each	$ 60,000.00	$ 60,000.00
	Dredge Operation for Centrifuge*		107	days	2	shifts/day			16500	$/shift	$ 3,517,800.00	$ 3,517,800.00
4	Centrifuge											
	Mobilization/Demobilization		1	LS					140000	$/each	$ 140,000.00	$ 140,000.00
	Centrifuge operation*		128	days	2	shifts/day			7700	$/shift	$ 1,969,968.00	$ 1,969,968.00
5	Centrate (Water Management)											
	Sewer		44442	cu.m	65	% water	28887300	litres	0.10	$/l	$ 2,888,730.00	$ 2,888,730.00
Landfill - Permanent Disposal												
1	Landfill Trucking and Tipping (Dry dredge mater		282	DMT/d	82	days	23208.6	tonnes	90	$/tonne	$ 2,088,774.00	$ 2,088,774.00
						Sub Total (Permanent and Landfill Disposal)						**$ 10,915,272.00**
									30% Contingency			$ 3,274,581.60
										Total		**$ 14,189,853.60**

6.4 Comparison of Options

Three options for disposal of the dredge material were developed based on our current understanding of the project. Table 6.5 provides a comparison of the options. All of the options Option 1 utilizes both City and HOPA property to store the material. The City's property is used for permanent filling and HOPA's property is used as a temporary store the excess material to dry the material before transfer to a landfill. Option 2 uses only HOPA property to temporarily store and dry dredgeate until it is transferred to a landfill. Option 3 utilizes City property as a temporary work area to operate a centrifuge and stage the work. HOPA property leasing fees would not be included in the costs if City property were used to store or manage the material. However, only

Option 3 can be carried out without the use of HOPA property. As well, Cell #4 and the area identified south of Cell #4 for the centrifuge operation is in close proximity to Windermere Basin that is a public park. Managing dredge material may not be a compatible activity adjacent to the park.

Table 6.5 Comparison of Options

Option	1	2	3
Disposal Location	Cell 4 (Permanent) + Pond N-2 (Temporary) Landfill	Pond N-2 (Temporary) Landfill	City Property Landfill
Sediment Quality	Meets Table 3.1 (MECP 2019)	Non-Hazardous Waste	Non-Hazardous Waste
Dredge Method	Mechnical Dredging	Mechanical Dredging	Hydraulic Dredging
Loading Dock	Strathearne Dock	Strathearne Dock	n/a
Water Management	City Storm/Sanitary Sewer	City Storm/Sanitary Sewer	City Storm/Sanitary Sewer
Capacity	12,000m^3 - Cell 4 18,000m^3 - Pond N-2/Landfill	30,000m^3 - Pond N-2/Landfill	n/a
Land Ownership	City and Port	Port Only	City Only
Total Costs	**$9.1M + 30% allowance**	**$9M + 30% allowance**	**$11M + 30% allowance**
Dredge	$3.2M *mechanical dredge, dock, turbidity curtain, restoration*	$3.2M *mechanical dredge, dock, turbidity curtain, restoration*	$3.6M *hydraulic dredge, turbidity curtain, pumping to centrifuge*
Disposal	$5.9M *$0.7M - Cell 4* *$0.9M - Pond N-2* *$2.1M - Sewer* *$2.2M - Trucking & Landfill*	$5.8M *$1.3M - Pond N-2* *$0.9M - Sewer* *$3.3M - Trucking and Landfill*	$7.4M $0.3M - Access & Site Prep $2.1M - Centrifuge $2.9M - Sewer $2.1M - Trucking and Landfill
Notes	Potential for larger volume stored at Cell 4, direct water from dredge and Cell 4 to sewers	Direct water to sewer from dredge only	Based on Terrapure Environmental estimate, assumes 30% downtime and sewer treatment, does not include power consumption, and other costs

Option 1 assumes that the material either meets Table 3.1 (MECP 2019) or that only minimal modifications to the cell are required to accept this material. Although it is anticipated that this is the case, there is a risk that the sediment sampling and testing will not support these assumptions.

Permanent disposal at Cell #4 may not be feasible. Option 2 and 3 both assume that the material is non-hazardous waste and will be landfilled after it has been dried.

Option 1 and 2 both use Strathearne dock to unload and load dredge material. This is a convenient HOPA dock that could be used to access both disposal sites. Option 3 assumes that the material will be transferred from the harbour to the mixing tank directly.

Excess water is directed to a sanitary sewer and treated at a local waste water facility in all of the options. Figure 2.1 shows the locations of both HOPA and City sanitary and sewer lines and outlets in the study area. Option 2 relies on passive drying to reduce the water content in the material before disposal. Option 3 will generate the largest volume excess water. Alternative options for water management may be possible depending on the sample test results. Costs associated with water management for each option may be change with the results of the testing.

Option 2 is the least expensive option, $9M, based on our current understanding of the project. Option 1 is only slightly more expensive at $9.1M and Option 3 is estimated to cost $11M but does not include operational costs such as power consumption. These estimates do not include a design or construction contingency. We recommend a 30% allowance at this time.

Overall Option 2 Temporary storage at Pond N-2 and disposal at a landfill is considered the preferred option based on our current understanding of the project. This should be confirmed during detail design.

7 SUMMARY AND RECOMMENDATIONS

The following summarizes the study's findings and recommendations:

- It is anticipated that approximately 30,000m3 of dredge material will need to be removed from the area adjacent to Pier 25 in 2022.
- Dredging of Pier 25 may be carried out using mechanical or hydraulic equipment. The type of equipment selected should consider the preferred disposal option.
- Sediment samples and testing from the previous dredge project indicated that the material is non-hazardous waste.
- Disposal options were developed in this study were based on sampling and testing carried out for the previous dredge project. All of the options include disposal of some or all of the material offsite at a landfill unless a beneficial reuse or site specific risk assessment is carried out for this material. This assessment must be carried out by a Qualified Person.
- All options require management of excess water. For this study it was assumed that all water would be directed to a sanitary sewer and treated at a local waste water treatment plant. Water sample testing and the results compared to the relevant standard to confirm and determine other disposal options.
- All options will require permits or approvals from the regulating agencies. Other agencies may need to be informed of the project.
- Three options for disposing of the material were identified including:
    - Option 1 – Permanent Disposal at Cell #4
    - Option 2 – Temporary Storage at Pond N-2 and Disposal at a Landfill
    - Option 3 - Centrifuge and Disposal at a Landfill
- Permanent disposal at Cell #4 assumes that only minimal modifications to the cell are required to accept this material. Although it is anticipated that this is the case, there is a risk that the sediment sampling and testing will not support these assumptions. Permanent disposal at Cell #4 may not be feasible.
- The estimated cost of dredging and disposals ranges between $9M and $11M not including a design or contingency allowance. A 30% allowance is recommended at this stage of the project.
- Option 2 - Temporary Storage at Pond N-2 and Disposal at a Landfill is the recommended option based on the information currently available.

References

W. F. Baird and Associates Limited, 2010, Enhancement of Windermere Basin Detailed Design Report prepared for the City of Hamilton. February 2010.

C. B. Fairn and Associates Ltd., 2015. Feasibility Study for Dredgeate Disposal Management Plan Pier 25 Maintenance Dredging, Hamilton, Ontario, prepared for Hamilton Port Authority and City of Hamilton. December 23, 2015.

Environmental Protection Act, R.R.O. 1990 Regulation 347, General – Waste Management

Ontario Ministry of Environment Conservation and Parks (MECP), 2019 Rules for Soil Management and Excess Soil Quality Standards.

Ontario Ministry of Environment (MECP) 2011 Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act. April 15, 2011 PIBS #7382e01

Ontario Ministry of the Environment (MECP) 2011. Fill Quality Guide and Good Management Practices for Shore Infilling in Ontario.

Peto MacCallum Ltd. (PML) 2016. Pier 25 Pre-Dredge Sediment Sample and Chemical Testing Program, Pier 25 Hamilton, Ontario prepared for Hamilton Port Authority. April 2016.

CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Environmental Services Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	May 3, 2021
SUBJECT/REPORT NO:	Award of Request for Proposal C11-46-20, Management and Processing of the City of Hamilton's Green Cart Material (PW21026) (City Wide) **(Outstanding Business List Item)**
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Joel McCormick (905) 546-2424 Ext. 4770
SUBMITTED BY: **SIGNATURE:**	Craig Murdoch Director, Environmental Services Public Works Department 

RECOMMENDATIONS

(a) That Harbourside Organix Inc. be selected as the Successful Proponent for Project A (Operations and Maintenance of the Central Composting Facility) of Request for Proposals Contract C11-46-20, Management and Processing of the City of Hamilton's Green Cart Material;

(b) That the General Manager of Public Works be authorized and directed to finalize the terms and conditions of the Contract with Harbourside Organix Inc., in accordance with the provisions of Request for Proposals Contract C11-46-20;

(c) That the Mayor and City Clerk be authorized and directed to execute the Contract with Harbourside Organix Inc. and any ancillary documents for Contract C11-46-20 with content acceptable to the General Manager of Public Works and in a form acceptable to the City Solicitor; and,

(d) That Outstanding Business List Item respecting the Operations and Maintenance of the Central Composting Facility, be identified as completed and removed from the Public Works Outstanding Business List.

EXECUTIVE SUMMARY

The current contract for the operation and maintenance of the Central Composting Facility (CCF) is set to expire June 27, 2021. As a result, staff initiated the development of Request for Proposals (RFP) C11-46-20, Management and Processing of the City of Hamilton's Green Cart Material, which was initially released May 25, 2020, then subsequently released November 10, 2020 and closed on January 4, 2021.

The RFP is for a five-year operation and maintenance contract starting June 28, 2021 and expiring on June 30, 2026. This contract also includes two optional, one-year extensions at the sole discretion of the City of Hamilton (City), bringing the total potential contract term to seven years.

The RFP contained two separate scopes of work:

- Project A: Operation and Maintenance of the Central Composting Facility; and,
- Project B: Operation and Maintenance of the CCF as an Organic Transfer Facility with Offsite Processing of Organic Waste.

The scope of work for Project A maintains the current level of operation and maintenance of the CCF while Project B utilizes a third-party facility for the processing of Source Separated Organics (SSO) collected through the Green Bin program, while converting and operating the CCF into an Organic Transfer Facility (OTF).

The RFP was also developed to allow for the submission of an in-house proposal with the potential to transfer the operation and maintenance of the CCF from a contracted service to an in-house service.

Four proposals were received upon closing of the RFP, two proposals for Project A and two proposals for Project B:

- Project A Proposals: In-house Submission Team and Harbourside Organix Inc., which is owned and operated by AIM Environmental Group: and,
- Project B Proposals: StormFisher Environmental and Walker Environmental Group

Following the technical evaluation of the proposals, it was determined that proposals for Project A from the In-house Submission Team and Harbourside Organix Inc. passed the technical evaluation and proceeded to the financial evaluation while both proposals submitted for Project B, StormFisher Environmental and Walker Environmental Group did not meet the minimum score associated with the technical evaluation and therefore, did not proceed to the next step of the evaluation.

Following the financial analysis of the proposals from the In-house Submission Team and Harbourside Organix Inc. and following the completion of a risk assessment conducted between the two options, it is recommended that RFP C11-46-20 be awarded to Harbourside Organix Inc. for Project A, Operation and Maintenance of the Central Composting Facility.

Harbourside Organix Inc. has been in operation since 1989 and has been operating and maintaining the City's CCF since 2006, under the name of AIM Environmental Group. Harbourside Organix Inc. has vast experience in developing and operating composting facilities similar to the CCF for municipalities in Ontario and across the country.

Alternatives for Consideration – See Page 10

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: With the award of RFP C11-46-20, the annual operating cost will be approximately $3.168M per year which is within the 2021 approved budget.

Table 1 outlines the annual contract price received in response to the RFP for both Harbourside Organix Inc. and the In-house Submission Team's proposal.

Table 1

	Harbourside Organix Inc.	In-House Submission Team
Annual Proposal Price	$ 3,167,836.47	$ 3,541,571.15

The current 2021 Tax Operating Budget for this work is $3.209M. Therefore, the bid is approximately $40K or 1.3% less than the approved budget as outlined in Table 2.

Table 2

	Harbourside Organix Inc.
Annual Proposal Price	$ 3,167,836.47
2021 Operating Budget	$ 3,209,210.00
2021 Budget Decrease	-$ 40,373.53
% 2021 Budget Decrease	-1.3%

With the award of RFP C11-46-20, the five-year operating budget forecast for this contract is approximately $17.03M based on an estimated annual escalation factor of 2% and estimated tonnage growth as identified in the

RFP. This is approximately $2.01M less than the five-year operating budget forecast for the In-house Submission Team at $19.04M.

When developing the 2021 operating budget, staff anticipated an increase based on other recent waste RFPs that demonstrated increased cost. Because of this, staff increased the 2021 operating budget by approximately $900K or 39% when compared to the approved 2020 operations budget for this work.

Since the current operation and maintenance contract for the CCF is set to expire on June 27, 2021, the estimated 2021 operating cost for this service will be based on the first six months of the year under the current contract and the last six months of the year under the new contract. Therefore, the estimated 2021 operating budget for the operation and maintenance of the CCF will be approximately $2.95M. This represents an annualized decrease of $260K or 8.6% compared to the 2020 operating budget and will be forecasted as a favourable variance during 2021.

As a result of the 2021 operating budget being higher than the new contract award, the annualized impact of $260K will not result in a budget pressure in 2022 since the budget is already sufficient. The impact to the 2022 operating budget will be based on annual escalation and growth factors that will form part of the 2022 budget process.

The RFP also provided proponents with the option to supply to the City a cost savings attributed to the ownership of the environmental attributes (Green House Gas Credits) associated with the processing of SSO at the CCF. Further details and analysis can be found in the Alternatives for Consideration.

Staffing: There are no staffing implications related to the recommendation in Report PW21026.

Legal: Legal Services staff assisted with the RFP preparation and evaluation process and will be involved in the preparation and execution of the contract with the Successful Proponent.

HISTORICAL BACKGROUND

The current operation and maintenance contract for the CCF commenced in June 2006 and is set to expire June 27, 2021. At the April 3rd, 2019 Public Works Committee (PWC) meeting, staff were directed to do the following:

- Issue an RFP for the operation and maintenance of the CCF;
- Establish an in-house bid team to prepare and submit a bid to the RFP with the potential to transfer the service from a contracted provider to an in-house service;
- Conduct a risk assessment of contracted operation and maintenance vs. in-house operation and maintenance; and,
- Report back to PWC with recommendations based on the risk assessment results and both in-house and external bids received.

Prior to the development of the RFP and in response to Council direction for staff to submit an in-house proposal to the RFP, staff established two teams. The first team being the RFP Development Team whose responsibility was to create the RFP and complete the procurement process, and the second team being the In-house Submission Team whose responsibility was to develop and submit a proposal in response to the RFP.

Procurement Policy #22 – In-House Bid Submissions, guided staff through the in-house bid submission process including implementing boundaries to maintain the integrity and fairness of the RFP development and procurement process. In addition, the RFP Development Team employed the services of a fairness monitor to oversee the procurement process from start to finish. The role of the fairness monitor was to ensure that the process was conducted in a fair, open and transparent manner for all potential proponents and to also ensure that there are no biases towards or against the in-house submission.

In preparation for the expiry of the current contract and with direction received from Council, staff released RFP C11-09-20 on May 25, 2020 for the operation and maintenance of the CCF.

Shortly following the release of RFP C11-09-20, staff received an inquiry from a proponent asking the City to consider allowing alternative bids to process City SSO at a third-party off-site processing facility while using the CCF as a transfer facility instead of a processing facility. Following this inquiry, a motion was brought forward to the June 17, 2020 PWC meeting seeking direction to cancel RFP C11-09-20 with the intent to modify and reissue the RFP with an additional processing option.

This motion was passed at the City Council meeting on June 24, 2020. RFP C11-09-20 was subsequently cancelled, modified and reissued with the following two options:

- Accepting SSO at the City's CCF and processing SSO into compost that meets the provincial compost quality standards. This option continues to see the CCF being used as a processing facility; and,

- Accepting SSO at the City's CCF, consolidate and transfer the SSO to a third-party processing facility that will process it into a product with beneficial end use. This option would see the CCF being converted to an Organics Transfer Facility (OTF).

The intent of cancelling RFP C11-09-20 and reissuing with a second option for third-party off-site processing was to provide staff and Council additional options to consider when awarding the next contract for the processing of City SSO. The modified RFP also allowed proponents to submit a proposal for either of the options listed above or both.

Following Council approval of the motion, staff cancelled RFP C11-09-20 and modified the RFP to include the two options. RFP C11-46-20 was released on November 10, 2020 and closed January 4, 2021.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

Solid Waste Management Master Plan (SWMMP) – 2020 Update

- The development of RFP C11-46-20, Management and Processing of the City of Hamilton's Green Cart Material supports the City's SWMMP guiding principles.

Solid Waste Management By-law 20-221:

- Solid Waste Management By-law 20-221 regulates the requirements for waste management programs.

Procurement Policy – By-law 17-164

- The Request for Proposals was issued in accordance with the City's Procurement Policy. By-law 107-064 and more specifically Section 4.5.4, Policy #5.4 Request for Proposals and Policy #22 – In-House Bid Submissions.

RELEVANT CONSULTATION

The recommendations in Report PW21026 were prepared in consultation with staff from the Corporate Services Department including:

- Financial Services and Taxation Division (Procurement Section);
- Legal and Risk Management Services Division (Legal Services Section); and,
- Financial Planning, Administration and Policy Division (Finance and Administration Section).

The Waste Management Advisory Committee was also consulted and informed during this process.

ANALYSIS AND RATIONALE FOR RECOMMENDATION(S)

RFP Overview

The scope of work for RFP C11-46-20 included the following:

- Project A: Operation and Maintenance of the Central Composting Facility; and,
- Project B: Operation and Maintenance of the CCF as an Organic Transfer Facility with Offsite Processing of Organic Waste.

Staff were also directed to establish an in-house bid team to prepare and submit a proposal to the RFP with the potential to transfer the operation and maintenance of the CCF from a contracted service provider to an in-house service.

The RFP included a three-step evaluation process with the first step being the review of the proponents' technical submission, the second step being the financial evaluation and the third step determining the total evaluation score. The proponent with the highest total evaluation score, which is determined by a 75/25 split between the technical and financial submission is recommended as the preferred proponent. The recommendation of the preferred proponent also took into consideration the results of a risk assessment that compared contracted operation and maintenance of the CCF verses in-house operation and maintenance.

The technical submissions were scored based on the evaluation criteria outlined in the RFP, which included the company's capabilities, their operating details including labour and equipment to be used for the contract, and proposed work plan to undertake the services. Proponents were required to meet a minimum score on their technical submission before they could proceed to the second step.

The City received four proposals upon close of the RFP, one from the In-house Submission Team for Project A, one from Harbourside Organix Inc. for Project A, one from StormFisher Environmental for Project B and one from Walker Environmental for Project B. Overall, 11 companies picked up the RFP. The City was notified by two of the 11 companies the reasons why a proposal to the RFP was not submitted. Those reasons include:

- Unable to provide a competitive proposal; and,
- Conditions and timing.

Following the review of each proponent's technical submission, both the In-house Submission Team and Harbourside Organix Inc. met the minimum score and proceeded to the financial evaluation. Following the financial evaluation, both proposals were deemed compliant and the total evaluation score for each proposal were determined. The Successful Proponent recommended for award with the highest total evaluation score out of 100 points is Harbourside Organix Inc. with a total of 87 points, in comparison to the In-house Submission team who scored 83 points.

Risk Assessment

Staff were directed to complete a risk assessment of contracted operation and maintenance of the CCF (Contracted Service) versus in-house operation and maintenance of the CCF (In-house Service). The risk assessment was incorporated into the overall analysis to determine the recommended Successful Proponent for RFP C11-46-20. To complete this work, staff engaged a consulting company with experts on risk analysis.

The first step of the risk assessment was for staff to identify, log and score risks associated with both options. A three-factor scoring system based on the Failure Modes and Effects Analysis (FMEA) was applied to each identified risk, which took into consideration the following:

- Severity of the risk;
- Likelihood of the risk occurring; and,
- Detectability of the risk.

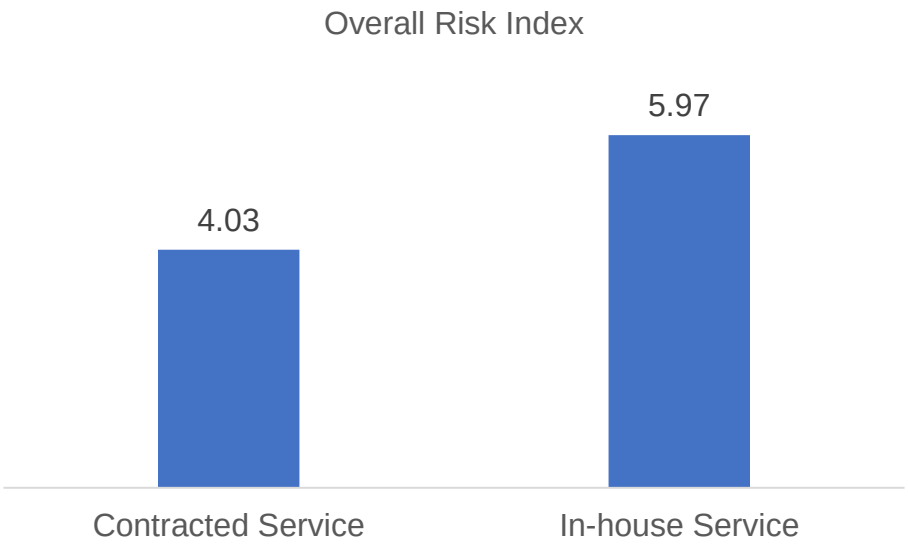
The identified risks for each option including the associated scores were then categorised into one of six criteria:

- Financial;
- Regulatory;
- Environmental;

- Public Perception;
- Internal City Management Effort; and,
- CCF Performance.

A Multi-Criteria Decision Support System (MCDSS) was then utilized to integrate the scores for the identified risks with the categorization of the risks across the six criteria. The resulting output is an overall risk index for each option within a range of 0-10, with a higher index indicating a higher relative risk, and a lower index indicated a lower relative risk.

The results of the risk assessment are as follows:



The results of the risk assessment indicate that Contracted Service carries the least risk associated with operation and maintenance of the CCF with an overall risk index of 4.03 when compared to In-house Service for the operation and maintenance of the CCF at a risk index of 5.97.

Recommended Successful Proponent

Based on the evaluation of the proposals received and the risk assessment analysis, it is recommended that Project A, under RFP C11-46-20, Management and Processing of the City of Hamilton's Green Cart Material be awarded to Harbourside Organix Inc. Harbourside Organix Inc. is the existing contractor for the operation and maintenance of the CCF (Aim Environmental Group) for the City which will also result in a seamless transition from the current contract to the future contract.

ALTERNATIVES FOR CONSIDERATION

Should Council not wish to approve the recommendations as outlined Report PW21026, the following alternatives are provided for consideration:

Option 1: To award the RFP to the In-house Submission Team.

Financial: With the award of RFP C11-46-20 to the In-house Submission Team, the annual operating cost will be approximately $3.542M per year.

Table 4 outlines the annual contract price received in response to the RFP for both Harbourside Organix Inc. and the In-house Submission Team's proposal.

Table 4

	Harbourside Organix Inc.	In-house Submission Team
Annual Proposal Price	$ 3,167,836.47	$ 3,541,571.15

The In-house Submission Team's annual cost is approximately $374K more when compared to Harbourside Organix Inc.

The current 2021 Preliminary Tax Operating Budget for this work is $3.209M. This represents an increase of approximately $333K or 10.4% over the approved operating budget. Details are outlined in Table 5.

Table 5

	In-House Submission Team
Annual Proposal Price	$ 3,541,571.15
2021 Operating Budget	$ 3,209,210.00
2021 Budget Increase	$ 332,361.15
% 2021 Budget Increase	10.4%

The five-year operating budget forecast for this contract if awarded to the In-house Submission Team is approximately $19.04M based on an estimated annual escalation factor of 2% and estimated tonnage growth as identified in the RFP. This is approximately $2.01M more than the five-year operating budget forecast for the Harbourside Organix Inc. proposal at $17.03M.

From a budget perspective, since the current operation and maintenance contract for the CCF is set to expire on June 27, 2021, the estimated operating cost for 2021 for this service will be based on the first six months of

the year under the current contract and the last six months of the year under the new contract. Therefore, the estimated 2021 operating budget for the operation and maintenance of the CCF if awarded to the In-house Submission Team will be approximately $3.14M. This represents an annualized decrease of $70K or 2.2% compared to the 2021 operating budget and will be forecasted as a favourable variance during 2021.

As a result of the 2021 operating budget being lower than the contract price provided by the In-house Submission Team, a budget pressure in 2022 of approximately $332K will be expected. The impact to the 2022 operating budget will be based on annual escalation and growth factors that will form part of the 2022 budget process if the In-house bid is selected for the contract.

Staffing: If Council chooses to award RFP C11-46-20 to the In-house Submission Team, an additional 12 Full Time Employees (FTEs) will be required in order to complete the work as outlined in the RFP. The costs associated with the FTEs is incorporated into the overall proposal's cost outlined in the Financial Implications under the Alternatives for Consideration.

Legal: Legal Services staff assisted with the RFP preparation and evaluation process and will be involved in the preparation and execution of the contract with the Successful Proponent.

Risk Assessment

The details of the risk assessment completed in response to this RFP can be found in the Analysis and Rationale for Recommendation(s) section.

Due to both the cost and associated risks with operating and maintaining the CCF in-house, it is not recommended that Council approve this alternative.

Option 2: Environmental Attributes

The RFP provided proponents with the option to purchase the environmental attributes associated with the processing of SSO and operations of the CCF. Regarding the operations of the CCF and processing of SSO into compost, the environmental attributes are Green House Gas (GHG) credits. The purchase of the environmental attributes by the contractor would provide additional revenue to the City.

The In-house Submission Team was not able to provide a cost to purchase the environmental attributes due to the City owning the environmental attributes as outlined

in the RFP, but if RFP C11-46-20 is awarded to the In-house Submission Team, it is possible for the City to go through the process of verifying the environmental attributes and sell for market value at the time of sale. At this time, further investigation would be needed to determine the process for validation and marketability of the credits by the City.

Harbourside Organix Inc. identified in their proposal an annual revenue of approximately $73K paid to the City in exchange for the ownership of the environmental attributes credited to the operations of the CCF. If Council approves this alternative, the City would not retain ownership of the environmental attributes. With the environmental attributes not being retained by the City, this would not assist the City in reaching its environmental or climate change goals.

With the current operation and maintenance contract for the CCF, the City does not retain ownership of the environmental attributes, instead the environmental attributes are owned by the contractor.

Financial: If Council accepts this alternative for consideration, then the City would receive approximately $73K annually from Harbourside Organix Inc. for the transfer of ownership of the environmental attributes from the City. This would equate to a total of $365K in revenues for the City for the term of the five-year contract.

Staffing: There are no staffing implications.

Legal: There are no legal implications.

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

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

Not applicable.

11.1

CITY OF HAMILTON

M O T I O N

Public Works Committee: May 3, 2021

MOVED BY COUNCILLOR J.P. DANKO.....…...…..……..……...

SECONDED BY COUNCILLOR ……..……..

William Connell Park Fencing Improvements (Ward 8)

WHEREAS, William Connell Park, located at 1086 West 5th Street, is an active community park in Ward 8 with a variety of recreational opportunities that benefit residents;

WHEREAS, wind blown litter has become an operational issue and visual blight at the park,

WHEREAS, the installation of a 6' galvanized chain link fence along the park's southern property line, adjacent to 1136 West 5th Street, would mitigate this issue by trapping litter.

THEREFORE, BE IT RESOLVED:

(a) That $13,000 be allocated from the Ward 8 Capital Reinvestment Discretionary Account to implement the installation of a new chain link fence, along the southern property line adjacent to 1136 West 5th Street; 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.

11.2

CITY OF HAMILTON

M O T I O N

Public Works Committee: May 3, 2021

MOVED BY COUNCILLOR J. FARR……...…...…..……..……...

SECONDED BY COUNCILLOR ……..……..

Installation of Curb Extensions on MacNab Street North and Barton Street West, Hamilton (Ward 2)

WHEREAS, a concept that creates additional on-street parking on MacNab Street North at York Boulevard to serve short term parking needs has been identified, but requires a curb extension to maintain access to the nearby HSR bus pad; and,

WHEREAS, residents have long requested the installation of a curb extension and rain garden at Barton Street West at MacNab Street North as a traffic calming measure;

THEREFORE, BE IT RESOLVED:

(a) That the estimated cost of $37,000 to install a curb extension on MacNab Street North, at York Boulevard, be funded from Ward 2 Special Capital Re-Investment Reserve Account (108052);

(b) That staff be authorized and directed to evaluate design options and future operational considerations for a curb extension and rain garden on Barton Street West, at MacNab Street North, and that the estimated cost of $55,000 for construction be funded from Ward 2 Special Capital Re-Investment Reserve Account (108052); and,

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

11.3

CITY OF HAMILTON

M O T I O N

Public Works Committee: May 3, 2021

MOVED BY COUNCILLOR T. JACKSON.....

SECONDED BY COUNCILLOR .....

Request for Tree Supply (Ward 6)

WHEREAS, increasing the urban tree canopy by providing trees has many environmental benefits to the residents of Ward 6 and the wider City;

WHEREAS, the provision of trees to be planted on private property is not currently funded under existing tree planting programs;

WHEREAS, residents of Sherwood Rise have requested trees be planted adjacent to their properties and the Confederation Square Apartment complex (located at 1195/1205 Fennell Avenue East); and,

WHEREAS, the Property Manager of Confederation Square Apartments has agreed to plant the trees and provide ongoing maintenance to the trees;

THEREFORE, BE IT RESOLVED:

(a) The supply and distribution of approximately 30 - 1.5 metre tall spruce trees at an upset cost of $4,500 be funded from the Ward 6 Special Capital Re-Investment Reserve (#108056); 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: May 3, 2021

MOVED BY COUNCILLOR T. JACKSON.....……..……..……..……...

SECONDED BY COUNCILLOR ……..……..

Dynamic Speed Signs for Ward 6

WHEREAS, the City of Hamilton is committed to creating safe neighborhoods and vibrant communities through the Vision Zero Action plan; and,

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

THEREFORE, BE IT RESOLVED:

(a) That staff be authorized and directed to take the required steps to purchase 12 new Dynamic Speed Signs to be permanently installed on Upper Ottawa Street (two units), Fennell Avenue East (two units), Mohawk Road East (four units), Concession Road/Mountain Brow Boulevard (two units), and Upper Gage Avenue (two units);

(b) That all costs associated with the installation of traffic calming measures at these locations be funded from the Ward 6 Special Capital Re-Investment Reserve, (108056) at an upset limit, including contingency, not to exceed $57,000; 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.

12.1

CITY OF HAMILTON

N O T I C E OF M O T I O N

Public Works Committee: May 3, 2021

MOVED BY COUNCILLOR M. PEARSON……..…….....

Safety Review on North Service Road between Fruitland Road and Dewitt Road, Hamilton (Ward 10)

WHEREAS, the current speed limit of the North Service Road is 60 km/h;

WHEREAS, a new condo development has been completed on the east side of the North Service Road in the area of Lakeview Drive; and,

WHEREAS, the developer is installing a Pedestrian Crossover to assist in facilitating the crossing of pedestrians to Bayview Park and there are concerns with vehicle speed and pedestrian safety;

THEREFORE, BE IT RESOLVED:

(a) That Transportation Operations and Maintenance staff be authorized and directed to undertake an evaluation of North Service Road, between Fruitland Road and Dewitt Road, to consider safety enhancements that could include community safety zone designation, speed limit reduction, additional warning signs and other possible safety enhancements; and,

(b) That Transportation Operations and Maintenance staff be directed to report back to the Public Works Committee in Q3 2021 with the findings, and possible recommendations, of the safety review of North Service Road, between Fruitland Road and Dewitt Road.