Agenda Including Addeds
Civic Works Committee

The 6th Meeting of the Civic Works Committee

April 20, 2021, 12:00 PM

2021 Meeting - Virtual Meeting during the COVID-19 Emergency

Please check the City website for current details of COVID-19 service impacts.

Meetings can be viewed via live-streaming on YouTube and the City website

Members

Councillors E. Peloza (Chair), J. Helmer, M. Cassidy, P. Van Meerbergen, S. Turner, Mayor E. Holder

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Pages

1. Disclosures of Pecuniary Interest

2. Consent

3. Scheduled Items

Transportation Advisory Committee

Report

3rd Meeting of the Transportation Advisory Committee
March 23, 2021
Advisory Committee Virtual Meeting - during the COVID-19 Emergency

Attendance

PRESENT: D. Foster (Chair), A. Abiola, G. Bikas, T. Kerr, T. Khan, P Moore, M. Rice, M.D. Ross and S. Wraight and J. Bunn (Committee Clerk)

ABSENT: D. Doroshenko and B. Gibson

ALSO PRESENT: G. Dales, J. Dann, Sgt. S. Harding, A. Jain, J. Kostyniuk, T. Koza, T. Macbeth, D. MacRae, A. Miller, K. Scherr, J. Stanford and B. Westlake-Power

The meeting was called to order at 12:17 PM.

1. Call to Order

1.1 Disclosures of Pecuniary Interest

That it BE NOTED that no pecuniary interests were disclosed.

2. Scheduled Items

2.1 Major Projects 2021 Rapid Transit Update

That it BE NOTED that the presentation, dated March 23, 2021, from J. Dann, Director, Major Projects and T. Koza, Manager III, Engineering, with respect to the Major Projects 2021 Rapid Transit Update, was received.

2.2 2021 Core Construction Mitigation

That it BE NOTED that the presentation, dated March 23, 2021, from D. MacRae, Director, Roads and Transportation, with respect to the 2021 Core Construction Mitigation, was received.

3. Consent

3.1 2nd Report of the Transportation Advisory Committee

That it BE NOTED that the 2nd Report of the Transportation Advisory Committee, from its meeting held on February 23, 2021, was received.

3.2 Municipal Council Resolution - 1st Report of the Transportation Advisory Committee

That it BE NOTED that the Municipal Council resolution, from its meeting held on February 23, 2021, with respect to the 1st Report of the Transportation Advisory Committee, was received.

3.3 Municipal Council Resolution - Improving Motor Vehicle Restrictions in Reserved Bicycle Lanes

That it BE NOTED that the Municipal Council resolution, from its meeting held on February 23, 2021, with respect to a by-law to improve motor vehicle restrictions in reserved bicycle lanes, was received.

3.4 Pre-Construction Notice - Downtown Loop and Municipal Infrastructure Improvements Phase 1 - King Street

That it BE NOTED that the Pre-Construction Notice, dated March 3, 2021, from J. Dann, Director, Major Projects, with respect to the Downtown Loop and Municipal Infrastructure Improvements Phase 1 for King Street, was received.

3.5 Public Meeting Notice - Official Plan Amendment - Masonville Secondary Plan

That it BE NOTED that the Public Meeting Notice, dated March 10, 2021, from S. Wise, Senior Planner, with respect to an Official Plan Amendment for the Masonville Secondary Plan, was received.

3.6 Notice of Revised Application and Notice of Public Meeting - Official Plan and Zoning By-law Amendments - 1153-1155 Dundas Street

That it BE NOTED that the Notice of Revised Application and Notice of Public Meeting, dated March 11, 2021, from L. Davies Snyder, Planner II, with respect to Official Plan and By-law Amendments for the properties located at 1153-1155 Dundas Street, was received.

3.7 2021 TAC Work Plan

That it BE NOTED that the Transportation Advisory Committee 2021 Work Plan, as at March 15, 2021, was received.

4. Sub-Committees and Working Groups

None.

5. Items for Discussion

None.

6. Adjournment

The meeting adjourned at 1:16 PM.

Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Kelly Scherr, P.Eng., MBA, FEC**
Managing Director, Environmental and Engineering Services and City Engineer
Subject: **Appointment of Consulting Engineer for Construction Administration Services**
2021 Infrastructure Renewal Program
Regent Street and Maitland Street Valve Chamber and Instrumentation
Date: **April 20, 2021**

Recommendation

That on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer, the following actions **BE TAKEN** with respect to the appointment of consulting services for the construction administration of the 2021 Infrastructure Renewal Program Regent Street and Maitland Street Valve Chamber and Instrumentation project:

(a) Dillon Consulting Limited, **BE AUTHORIZED** to carry out the resident inspection and contract administration for the Regent Street and Maitland Street Valve Chamber and Instrumentation project in accordance with the estimate, on file, at an upset amount of $349,499.76, including 10% contingency, excluding HST, in accordance with Section 15.2 (g) of the City of London's Procurement of Goods and Services Policy;

(b) the financing for this project **BE APPROVED** as set out in the Sources of Financing Report attached, hereto, as Appendix 'A';

(c) the Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this project;

(d) the approval given, herein, **BE CONDITIONAL** upon the Corporation entering into a formal contract; and

(e) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

Executive Summary

Purpose

This report recommends the continuation of consulting engineer services for construction administration of the 2021 Infrastructure Renewal Program Regent Street and Maitland Street Valve Chamber and Instrumentation project. This project involves the installation of a new drinking water valve chamber and instrumentation at the intersection of Regent Street and Maitland Street. The construction for this project is being awarded separately from the construction administration work through the Administrative Approval of Tender Acceptance/Contract Award process.

Context

The installation of a new valve chamber at the Regent Street and Maitland Street intersection is the first phase in a multi-phase project that was identified for construction under the annual Infrastructure Renewal Program. The new valve chamber will replace the existing valve chamber (Chamber 13) which is currently located in the Huron Street Woods. A location map depicting the approximate limits of the reconstruction project is provided in Appendix 'B'.

Linkage to the Corporate Strategic Plan

This recommendation supports the following 2019-2023 Strategic Plan areas of focus:

- Building a Sustainable City:
    - London's infrastructure is built, maintained, and operated to meet the long-term needs of our community.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- Civic Works Committee – May 27, 2013 – Appointment of Consulting Engineers, Infrastructure Renewal Program 2014-2015, Recommendation a) (viii)
- Civic Works Committee – June 19, 2018, Appointment of Consulting Engineers, Infrastructure Renewal Program 2019-2020, Recommendation b) (vi).
- Civic Works Committee – October 30, 2018, Notice of Completion, William Street Storm Sewer Outfall Municipal Class Environmental Assessment.

2.0 Discussion and Considerations

2.1 Project Description

The Regent Street and Maitland Street Valve Chamber and Instrumentation project includes the following improvements:

- Asphalt removal and replacement,
- Sidewalk removal and installation,
- Removal and replacement of storm sewers, sanitary sewers, watermain and appurtenances,
- Installation of cast in place water valve chamber and instrumentation cabinet,
- Pavement marking, and
- All traffic control associated with completing the work.

Infrastructure replacement needs have been coordinated within the Environmental and Engineering Services. There is sufficient funding for this work in the Capital Budget.

2.2 Background

Dillon Consulting Limited completed the Old North Servicing Strategy in 2014, in which the main goal identified was to make improvements to the stormwater servicing in the area. Through the design a conflict was found with an older watermain, requiring its relocation. As part of this work an existing water valve chamber called Chamber 13 needed to be relocated to the intersection of Regent Street and Maitland St. The relocation of the chamber is the first phase of several phases of work required for the relocation. The benefits of the new water chamber are as follows:

- The new chamber will ensure ease of access for Operators as well as provide more instrumentation to allow work to be undertaken outside of the chamber. The existing Chamber 13 is located within the Huron Street Woods. This has caused accessibility issues for Operations due to flooding, wildlife and trees in the area. The existing chamber's design is also very deep which makes it difficult for Operators to access.
- Replaces the existing chamber which is nearing the end of its useful life.
- Allows for the Acoustic Fibre Optic system that is installed in the transmission main from the Arva Pumping Station to be extended all the way to the new

chamber. When the previous Acoustic Fibre Optic was installed, it had to be stopped shy of Chamber 13 due to steep slopes.

The existing valve chamber in this area acts as one of the largest water distribution junctions in the City. Therefore, it is of great importance to make this junction as functional as possible.

3.0 Financial Impact/Considerations

3.1 Consulting Engineer Services

Dillon Consulting Limited was awarded the pre-design and detailed design of the Old North West Area Phase 1 (Sections of William Street, Regent Street, Maitland Street, Huron Street, Fraser Avenue) reconstruction by Council on June 26, 2018. This project was then divided into phases, with the construction of a new valve chamber and instrumentation at the Regent Street and Maitland Street intersection being the first phase. Due to the consultant's knowledge and positive performance on the pre-design and detailed design of Phase 1, the consultant was invited to submit a proposal to carry out the contract administration of the project. Dillon Consulting Limited submitted a proposal which includes an upset limit of $349,499.76, including 10% contingency, excluding HST.

Staff have reviewed the fee submission, including the time allocated to each project task, along with hourly rates provided by each of the consultant's staff members. That review of assigned personnel, time per project task, and hourly rates was consistent with other assignments of similar scope. The continued use of Dillon Consulting Limited on this project for construction administration is of financial advantage to the City because the firm has specific knowledge of the project and has undertaken work for which duplication would be required if another firm were to be selected.

In addition to the financial advantage, there are also accountability and risk reduction benefits. The City requires a Professional Engineer to seal all construction drawings. These 'record drawings' are created based on field verification and ongoing involvement by the Professional Engineer. This requirement promotes consultant accountability for the design of these projects, and correspondingly, reduces the City's overall risk exposure. Consequently, the continued use of the consultant who created and sealed the design drawings is required in order to maintain this accountability process and to manage risk.

In accordance with Section 15.2 (g) of the City of London's Procurement of Goods and Services Policy, civic administration is recommending that Dillon Consulting Limited be authorized to carry out the remainder of engineering services, as construction administrators, for a fee estimate of $349,499.76, including 10% contingency, excluding HST. These fees are associated with the construction administration services to ensure that the City receives the product specified and associated value. The approval of this work will bring the total engineering services for this project to $770,517.86, including 10% contingency, excluding HST, for both detailed design and construction administration. Note that a portion of the detailed design that was completed was towards a future phase of this project.

Conclusion

Dillon Consulting Limited has demonstrated an understanding of the City's requirements for this project, and it is recommended that this firm continue as the consulting engineer for the purpose of contract administration services, as it is in the best financial and technical interests of the City.

Prepared by:	**Aaron Rozentals, GDPA, P.Eng., Division Manager, Water Engineering**
Submitted by:	**Scott Mathers, MPA, P.Eng., Director, Water and Wastewater**

Recommended by:	**Kelly Scherr, P.Eng., MBA, FEC, Managing Director, Environmental and Engineering Services and City Engineer**
CC:	**Stephen Romano, Chris Ginty, Kyle Chambers, Ashley Rammeloo (City of London)**
	Jason Johnson (Dillon Consulting Limited)

Appendix ‘A’ – Sources of Financing

Appendix ‘B’ – Location Map

Appendix "A"

#21052
April 20, 2021
(Appoint Consulting Engineer)

Chair and Members
Civic Works Committee

RE: Construction Administration Services - 2021 Infrastructure Renewal Program
Regent Street and Maitland Street Valve Chamber and Instrumentation
(Subledger WS19C006)
Capital Project ES241421 - Infrastructure Renewal Program - Sanitary Sewers
Capital Project ES254021 - Infrastructure Renewal Program - Stormwater Sewers and Treatment
Capital Project EW383318 - Main Replacement Maintenance
Dillon Consulting Limited - $349,499.76 (excluding HST)

Finance and Corporate Services Report on the Sources of Financing:
Finance and Corporate Services confirms that the cost of this project can be accommodated within the financing available for it in the Capital Budget and that, subject to the approval of the Managing Director, Environmental and Engineering Services and City Engineer, the detailed source of financing is:

Estimated Expenditures	Approved Budget	Committed To Date	This Submission	Balance for Future Work
ES241421 - Infrastructure Renewal Program - Sanitary Sewers				
Engineering	2,000,000	318,174	30,230	1,651,596
Construction	11,615,864	6,420,637	0	5,195,227
Construction (Utilities Share)	91,750	91,750	0	0
City Related Expenses	25,000	0	0	25,000
ES241421 Total	13,732,614	6,830,561	30,230	6,871,823
ES254021 - Infrastructure Renewal Program - Stormwater Sewers and Treatment				
Engineering	2,000,000	311,750	30,231	1,658,019
Construction	7,944,576	6,412,290	0	1,532,286
City Related Expenses	100,000	0	0	100,000
ES254021 Total	10,044,576	6,724,040	30,231	3,290,305
EW383318 - Main Replacement Maintenance				
Engineering	309,810	14,620	295,190	0
Construction	2,064,770	1,744,463	0	320,307
City Related Expenses	300,000	44,416	0	255,584
EW383318 Total	2,674,580	1,803,499	295,190	575,891
Total Expenditures	$26,451,770	$15,358,100	$355,651	$10,738,019

Sources of Financing				
ES241421 - Infrastructure Renewal Program - Sanitary Sewers				
Capital Sewer Rates	9,140,864	4,488,811	30,230	4,621,823
Drawdown from Sewage Works Reserve Fund	2,250,000	0	0	2,250,000
Federal Gas Tax	2,250,000	2,250,000	0	0
Other Contributions (Utilities)	91,750	91,750	0	0
ES241421 Total	13,732,614	6,830,561	30,230	6,871,823

Appendix "A"

#21052
April 20, 2021
(Appoint Consulting Engineer)

Chair and Members
Civic Works Committee

RE: Construction Administration Services - 2021 Infrastructure Renewal Program
Regent Street and Maitland Street Valve Chamber and Instrumentation
(Subledger WS19C006)
Capital Project ES241421 - Infrastructure Renewal Program - Sanitary Sewers
Capital Project ES254021 - Infrastructure Renewal Program - Stormwater Sewers and Treatment
Capital Project EW383318 - Main Replacement Maintenance
Dillon Consulting Limited - $349,499.76 (excluding HST)

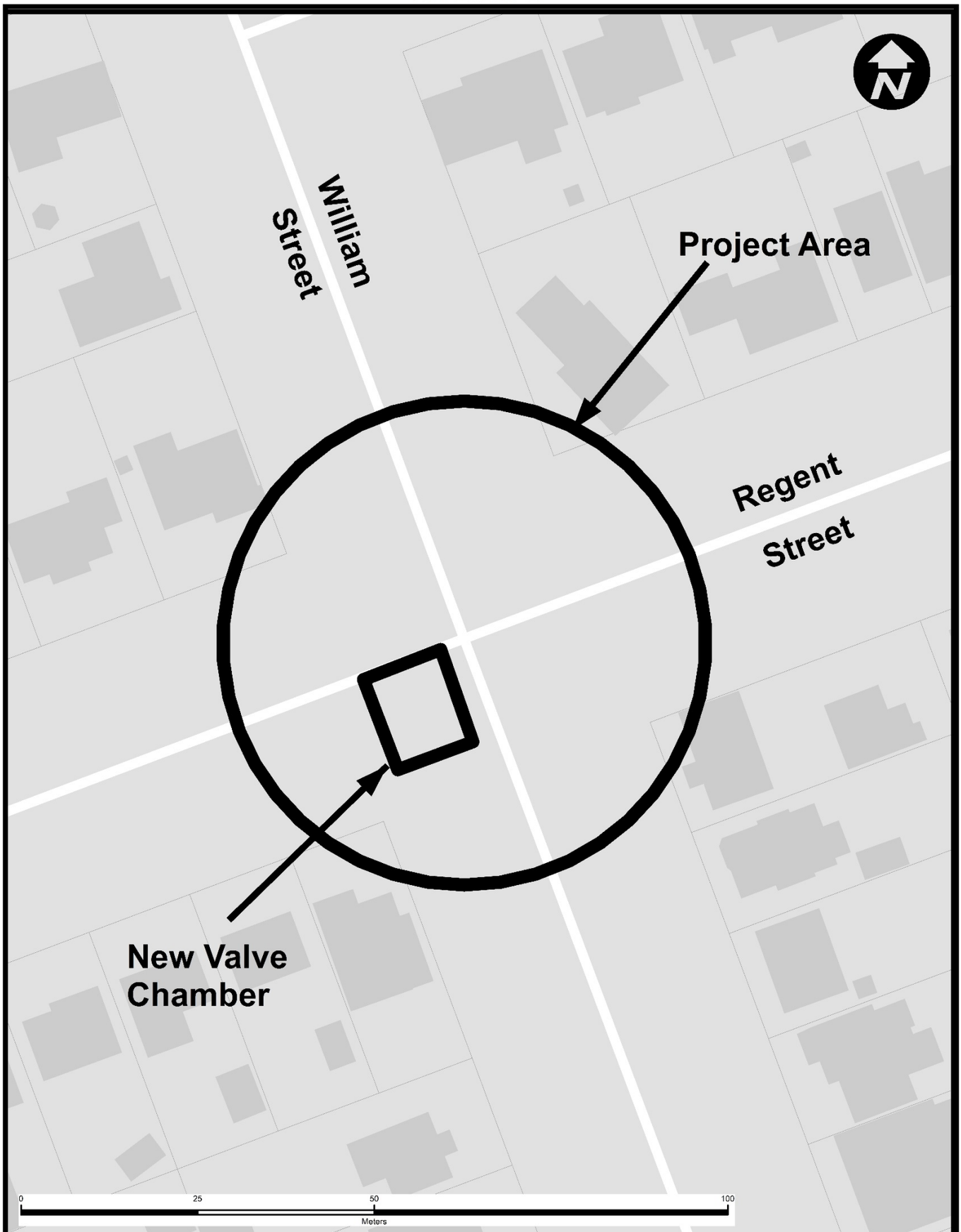
Sources of Financing continued	**Approved Budget**	**Committed To Date**	**This Submission**	**Balance for Future Work**
ES254021 - Infrastructure Renewal Program - Stormwater Sewers and Treatment				
Capital Sewer Rates	820,480	820,480	0	0
Drawdown from Sewage Works Reserve Fund	6,974,096	3,653,560	30,231	3,290,305
Federal Gas Tax	2,250,000	2,250,000	0	0
ES254021 Total	10,044,576	6,724,040	30,231	3,290,305
EW383318 - Main Replacement Maintenance				
Capital Water Rates	2,674,580	1,803,499	295,190	575,891
Total Financing	$26,451,770	$15,358,100	$355,651	$10,738,019

Financial Note:	**ES241421**	**ES254021**	**EW383318**	**Total**
Contract Price	$29,707	$29,708	$290,085	$349,500
Add: HST @13%	3,862	3,862	37,711	45,435
Total Contract Price Including Taxes	33,569	33,570	327,796	394,935
Less: HST Rebate	-3,339	-3,339	-32,606	-39,284
Net Contract Price	$30,230	$30,231	$295,190	$355,651

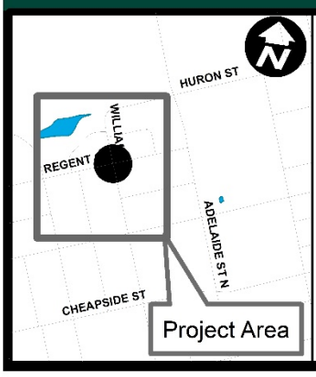
Jason Davies
Manager of Financial Planning & Policy

jg

APPENDIX 'B'



LOCATION MAP



2021 Infrastructure Renewal Program
Regent Street and Maitland Street Valve Chamber and Instrumentation

Regent Street and Maitland Street Intersection Work

Project Area

Map Produced by the Sewer Engineering Division

March 12 2021 CM

London CANADA

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PO Box 5035
London, Ontario
N6A 4L9
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Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Kelly Scherr, P.Eng., MBA, FEC**
Managing Director, Environmental & Engineering Services and City Engineer
Subject: **Sewage Overflows and Bypasses Into the Thames River**
Date: **April 20, 2021**

Recommendation

That, on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer, the following report on Sewage Overflows and Bypasses Into the Thames River, **BE RECEIVED** for information.

Executive Summary

Purpose

This purpose of this report is to provide Council with an overview of the causes of sewer system overflows and bypasses and provide an update on the various initiatives underway to reduce them.

Context

Overflows and bypasses occur in the sanitary collection system when excess flows push the sewer beyond its capacity. The most frequent cause of this is stormwater entering the sanitary system during heavy rainfall events. Sewer system overflows that exist in the sewer system were originally built to provide sewer system relief during these wet weather events, thus protecting homes from basement flooding. Bypasses at wastewater treatment facilities are to protect the facility from being inundated with flows that exceed its treatment capacity.

The City has a number of different programs and initiatives underway to help deal with unwanted water in the sanitary collection system and protect waterways, which are discussed in further detail below.

Linkage to the Corporate Strategic Plan

This recommendation supports the following 2019-2023 Strategic Plan areas of focus:

- Building a Sustainable City:
    - London’s infrastructure is built, maintained, and operated to meet the long-term needs of our community
    - Protect and enhance waterways, wetlands, and natural areas

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

September 26, 2017 – Civic Works Committee – Domestic Action Plan (DAP): London – Proposal Update

November 21, 2017 – Civic Works Committee – Pollution Prevention Control Plan Update

September 24, 2019 – Civic Works Committee – Wastewater Treatment Operations Environmental Assessment – Master Plan Study Initiation

2.0 Discussion and Considerations

2.1 Overflows and Bypasses

An overflow is the release of untreated wastewater to the environment, whereas a bypass is the diversion of wastewater around part of the wastewater treatment process, sometimes resulting in the release of untreated or partially treated wastewater. Overflows and bypasses are primarily caused by excess flows during wet weather events. Overflows can occur in sewer systems, while either overflows or bypasses can occur at pump stations and treatment facilities. Answers to frequently asked questions regarding London's bypasses and overflows are provided as Appendix 'A' Frequently Asked Questions.

The most common type of sewer that experiences overflows are called combined sewers. Combined sewer systems were designed to convey both storm and sanitary flows to the treatment plant. During large rainfall events, additional storm flows can cause the sewer to be over capacity so they were designed with overflow points to protect properties from basement flooding. Some pump stations also use emergency overflows to prevent basement flooding in the event of an equipment failure or a significant rainfall event that exceeds the capacity of the pump station. Wastewater treatment facilities may also experience overflows if the flow reaching the facility exceeds its capacity.

Sewers may also be partially combined. This means that there are separate sanitary and storm sewers; however, some rainwater is still directed to the sanitary sewer. This occurs in areas of the City where homes were constructed with their weeping tiles connected to the City's sanitary sewer system. During large storms, rainwater overwhelms the sanitary sewer system and causes basement flooding. More information on weeping tiles is provided in section 2.5 of this report.

Over the past ten years, the percentage of flows that bypassed the treatment plants with no treatment at all averaged of 0.17% of the volume of treated wastewater flow. All bypasses are monitored and reported to the Ministry of Environment, Conservation and Parks. Appendix 'B' "Annual Bypass Summary" provides a summary table of London's total annual bypass volumes as reported to the MECP since 2002.

There are six overflow points in the wastewater collection system that outlet directly to the Thames River and are monitored and reported on to the MECP annually. The flows vary dramatically every year as they are dependent on rainfall events.

2.2 Pollution Prevention Control Plan

London's Pollution Prevention and Control Plan (PPCP) is a multi-year master planning project designed to provide a long-term solution to address conveyance system sewer overflows and bypasses, and to mitigate the associated impacts of these discharges on receiving watercourses, including the Thames River, Pottersburg Creek, Medway

Creek, the Coves and Dingman Creek. Recommendations of the PPCP included considerations for climate change, data management, capital works, and removal of inflow and infiltration at the source.

The City has undertaken a number of initiatives that will help achieve the desired outcomes of the PPCP. These include:

- updates to storm data used for modeling to account for higher intensity storms that we experience due to climate change;
- data management updates such as continuous updates to GIS, sewer modelling, and flow monitoring program;
- sewer separation projects; and,
- inflow and infiltration reduction projects, e.g. weeping tile disconnections.

An update to the PPCP will be required in 2023. There is budget allotted in 2022 to retain a consulting engineering firm to complete this work.

2.3 Wastewater Treatment Master Plan

The Wastewater Treatment Operations Division is currently undertaking a Master Plan in order to develop a strategy for the collection and treatment of wastewater in London over the next fifty years. The City operates five wastewater treatment plants and thirty-eight pumping stations throughout the City and, even though the occurrence of overflows or bypasses is generally rare, the potential for them to occur exists in some form at each of them. The reliable and effective operation of each facility is therefore paramount to meeting the City's goals for environmental stewardship and the protection of the Thames River and other waterbodies, while also protecting the health of the City's residents, visitors and neighbours.

The Master Plan will provide a long term plan for the City's wastewater infrastructure, including treatment plants and pumping stations. Minimizing bypasses and overflows at these facilities will be a key consideration in developing this plan.

2.4 Lake Erie Domestic Action Plan

The Domestic Action Plan (DAP): London – A Proposal for Phosphorus Reduction highlights projects completed by the City that have reduced the discharge of phosphorous into the Thames River. It also highlights works currently identified with the 20-year plan to further reduce that phosphorous in the Thames River.

Because sanitary sewer overflows contribute to phosphorous loading in receiving waterbodies, a number of the actions identified relate to overflow reduction. Included are the replacement of combined sewers (discussed further below) and the development and circulation of an implementation plan for managing the highest priority sanitary sewer overflows as identified in the Pollution Prevention Control Plan.

2.3 Sewer Separation Program

One of the municipal actions identified in the Domestic Action Plan (DAP) for Phosphorus Reduction is the separation of combined sewers. The DAP states,

> “The City of London will accelerate plans to separate combined sewers, including the design and construction of necessary stormwater outlets, with the target of separating 80 per cent (17 kilometres) of its combined sewer system by 2025.”

This target for combined sewer replacement is contingent on federal and provincial funding. To date 6.2 kilometres of combined sewer has been removed and an additional 1.45 kilometres will be removed in 2021.

2.4 Unwanted Water: Inflow and Infiltration Reduction

Unwanted water entering the City's sewer system is the primary cause of sewer overloading during wet weather events. This unwanted water comes from two sources called inflow and infiltration. Inflow is the flow of stormwater into a sanitary sewer through a direct connection and infiltration is the seepage of groundwater into a sanitary sewer through leaks or cracks in the sewer. Infiltration is impacted by the condition of the sewers and can be addressed through long term management, rehabilitation, or replacement of sewers. Inflow, however, must be addressed in a different manner and should be minimized as much as possible through design and policy, since it has the potential to contribute very large volumes of extraneous flow.

The unwanted water from inflow and infiltration has a significant impact on London's collection system because it causes high flows of rainwater in the sewer system during large rain or snow melt events. The presence of this excess water leads to an increased risk of basement sewer backups and increases the probability that emergency discharges of untreated or partially treated sewage to the Thames River will be required to protect the City's residents and infrastructure from flooding.

A recent study completed in 2018 by KPMG quantified this problem further and found that the City of London receives approximately two and a half times more unwanted water than comparably sized municipalities in Southern Ontario. This analysis concluded that this unwanted water costs approximately $1 million per year in operational costs to treat.

A program led by staff to identify opportunities to reduce unwanted water in our sanitary sewer system is ongoing. This initiative, titled "Unwanted Water", will include alternatives for design and development standards, programs, enforcement, and bylaw changes with the goal of keeping unwanted water out of London's sewer system. The first report related to the Unwanted Water program will be submitted to Civic Works Committee Q3 2021 and lay out a series of initiatives for committee discussion and direction.

2.5 Weeping Tile Disconnection

Weeping tile connections are a leading cause of sanitary sewer overloading during heavy rainfall events that result in basement flooding. A weeping tile is a buried porous pipe that collects rainwater from along the bottom edge of a building's basement foundation. The pipe collects any rain or groundwater from along the bottom of the foundation wall preventing water from seeping into the building's basement. Homes generally built between the 1920s and 1980s are likely to have weeping tiles connected to the City's sanitary sewer collection system. Subdivisions built post-1985 have sump pits and sump pumps in basements addressing weeping tile flow, which consists of natural ground water, rainwater and snowmelt. There are an estimated 50,000 weeping tile connections contributing unwanted water to the City's sanitary collection system.

The current budget for the Basement Flooding Grant Program is $500,000 annually. This program provides homeowners with a 90% subsidy to separate weeping tiles from the sanitary sewer and install sump pumps and backflow valves. This protects the individual property from basement flooding and eliminates some unwanted water from the sanitary system. The Targeted Weeping Tile Disconnection Program is a City-led program that separates weeping tiles from the sanitary sewer in targeted

neighbourhoods in order to realize a noticeable reduction in unwanted water in the sanitary system and produce a neighbourhood-wide benefit. This program has an annual budget of $1 million which is sufficient to disconnect the weeping tile of approximately 30 homes each year.

3.0 Financial Impact/Considerations

There is no financial impact from this report.

Conclusion

Overflows and bypasses occur most frequently in the sanitary collection system when unwanted water enters the system during heavy rainfall events. The City has a number of initiatives underway to address the various causes of overflows and bypasses in order to reduce the number of occurrences and protect the health of our waterways.

Prepared by:	**Ashley Rammeloo, MMSc, P.Eng, Division Manager, Sewer Engineering**
Submitted by:	**Scott Mathers, MPA, P. Eng., Director, Water And Wastewater**
Recommended by:	**Kelly Scherr, P. Eng., MBA, FEC Managing Director, Environmental and Engineering Services and City Engineer**

CC: K. Oudekerk, S. Chambers

Appendix A

Bypasses and Overflows: Frequently Asked Questions

What are overflows and bypasses?

An overflow is the release of untreated wastewater to the environment. A bypass is the diversion of wastewater around part of the wastewater treatment process.

What causes overflows and bypasses?

They are caused by there being more water in the sewer than the sewer can carry. This is most often caused by extra water entering the system during rainstorms.

When do they usually happen?

Overflows and bypasses happen most often during heavy rainfall events and snowmelts, when extra water enters the sanitary system.

Where do they occur?

Bypasses occur at wastewater treatment facilities, which are located along the Thames River. Overflows happen in the sanitary sewer system at points where the sanitary sewer was connected to the storm sewer, or where there is an overflow release point in a combined sewer system.

Could you swim in the Thames River if we stopped overflows?

Action taken on reducing overflows will continue to improve water quality in the Thames River immediately following heavy rainfalls. There are, however, many other sources of water pollution. E. coli levels are measured in the river upstream of London and are too high to allow swimming. This is before the water even reaches the city and is influenced by our overflows. Thus, removing overflows will not make it safe to swim in the Thames River.

Why can’t we stop them now?

Although the City is actively separating combined sewers, every construction project consumes considerable time and money. Therefore, it is not feasible to eliminate them all at once. We also cannot force property owners to disconnect weeping tiles from the sanitary sewer, which is a large source of unwanted water in the sanitary system. Upsizing the sanitary sewers to accommodate those flows would be extremely costly. Simply blocking off overflow points without removing the source of the unwanted water would risk flooding basements with sewage.

Is this a problem only experienced in London?

No. It is a problem that exists in most major cities around the world.

How nasty is water discharged during a sewage bypass or overflow?

The water discharged during a bypass or overflow is highly diluted by rainwater compared with sewage direct from a residential home; however, even though it’s diluted it is still sewage and it’s our goal to eliminate releases of sewage into the Thames Rivers.

What are some recent project completed to reduce the number and severity of overflows and bypasses?

> In 2019 and 2020, combined sewers on York Street and Richmond Street, which contribute to the largest overflow point in the city, were separated. Sewer separation work continues in 2021, with an additional 1.45km of combined sewer being removed. Upgrades at wastewater treatment plants, such as the recent project at Greenway Pollution Control Centre, reduce the number and severity of bypasses.

When will London be free of overflows and bypasses?

> Although the City has a plan in place to remove combined sewers and we continue to encourage property owners to disconnect weeping tiles and offer grants to do so, changing weather patterns due to Climate Change make future extreme rainfall events difficult to predict. This means that completely removing overflows and bypasses is difficult to guarantee, since they are highly linked with extreme weather, an effect of climate change.

Appendix B

Annual Bypass Summary

	Treated (ML)	Raw Bypass		Secondary Bypass		Total		% of raw bypasses to treated flow	Rainfall yearly total (mm)
		ML	#	ML	#	ML	#		
2002	75,150	225	32	567	11	792	43	0.30%	861
2003	74,385	285	99	365	40	650	139	0.38%	985
2004	77,304	375	106	679	47	1054	153	0.48%	964
2005	75,150	225	74	566	26	791	100	0.30%	868
2006	83,075	201	99	862	33	1063	132	0.24%	1,202
2007	71,874	24	36	227	19	251	55	0.03%	771
2008	78,979	219	70	1,033	38	1252	108	0.28%	1,094
2009	74,557	158	60	901	22	1059	82	0.21%	931
2010	70,426	47	38	123	17	170	55	0.07%	931
2011	84,793	375	94	1,630	31	2005	125	0.44%	1,165
2012	67,865	4	6	41	6	45	12	0.01%	660
2013	76,160	249	55	765	20	1014	75	0.33%	1,075
2014	72,351	72	39	142	13	214	52	0.10%	956
2015	65,709	56	40	208	11	264	51	0.08%	687
2016	70,786	67	40	148	16	215	56	0.10%	929
2017	72,427	50	27	248	16	298	43	0.07%	914
2018	70,994	266	32	482	10	748	42	0.37%	975
2019	72,434	26	10	10	3	36	13	0.04%	1,037
2020	71,094	122.6	24	137.9	8	260.5	32	0.17%	999
Average		160	52	481	20	641.1	72		

Sewage Bypasses and Overflows into the Thames River

Why are we highlighting overflows and bypasses?

- Questions about overflows of sewage often come up during budget deliberations and during committee debate.
- This report and presentation is an opportunity to provide further background on this important issue and inform Council about what we are doing to reduce sewage overflows to the Thames river
- Today we will provide information regarding the current problem and discuss the various programs underway to address it.

Definitions

Overflows:

- release of untreated wastewater to the environment
- can occur in our sewer system, at pump stations, or treatment facilities

Bypasses:

- diversion of wastewater around part of the wastewater treatment process most often within a wastewater treatment plant.

What Causes Overflows and Bypasses?

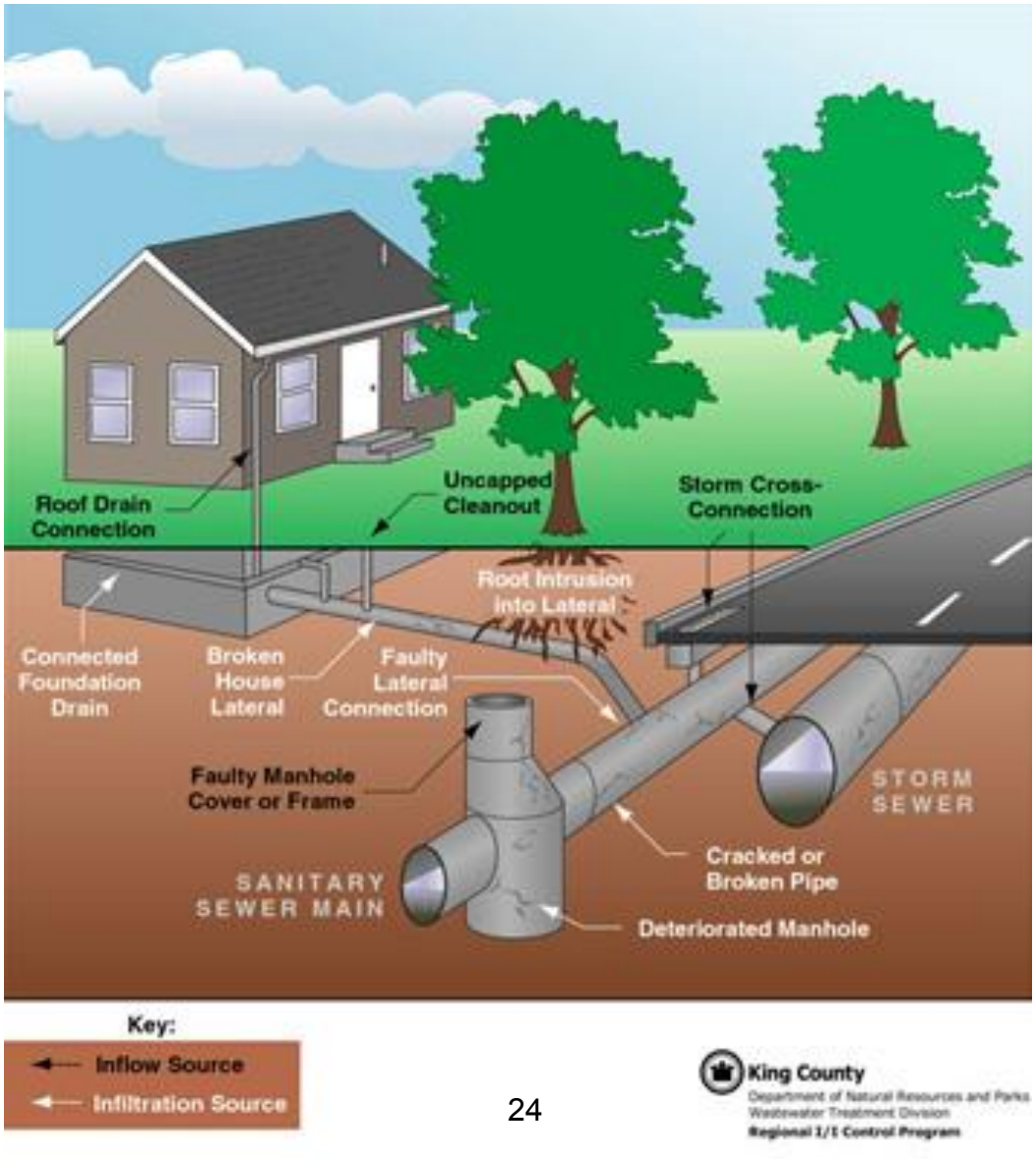
Both are most commonly caused by stormwater entering the sanitary sewer system, increasing flows beyond the capacity of the sewer.

Inflow: flow of stormwater into the sanitary sewer via a direct connection, e.g. combined sewers, or weeping tiles connected to partially combined sewers

Infiltration: seepage of groundwater into the sanitary sewer

- This is **unwanted water** in our sanitary sewer system
- Reduction of unwanted water from inflow and infiltration is key!

Inflow and Infiltration



What Are We Doing?

- Because there are multiple sources of this unwanted water, multiple approaches are needed

- Many of the plans and initiatives are interconnected

Pollution Prevention Control Plan (PPCP)

- Multi-year master planning project to provide long-term solutions to address conveyance system sewer overflows and bypasses
- Identifies highest priority overflow points for management based on frequency and volume of overflows
- Recommendations of the PPCP included considerations for climate change, data management, capital works, and removal of inflow and infiltration at the source.

Implementation of PPCP

The City has undertaken a number of initiatives that will help achieve the desired outcomes of the PPCP. These include:

- updates to storm data used for modeling to account for higher intensity storms that we experience due to climate change;
- data management updates such as continuous updates to GIS, sewer modelling, and flow monitoring program;
- sewer separation projects; and,
- inflow and infiltration reduction projects, e.g. weeping tile disconnections.

An update to the PPCP will be required in 2023. There is budget allotted in 2022 to retain a consulting engineering firm to complete this work.

Domestic Action Plan

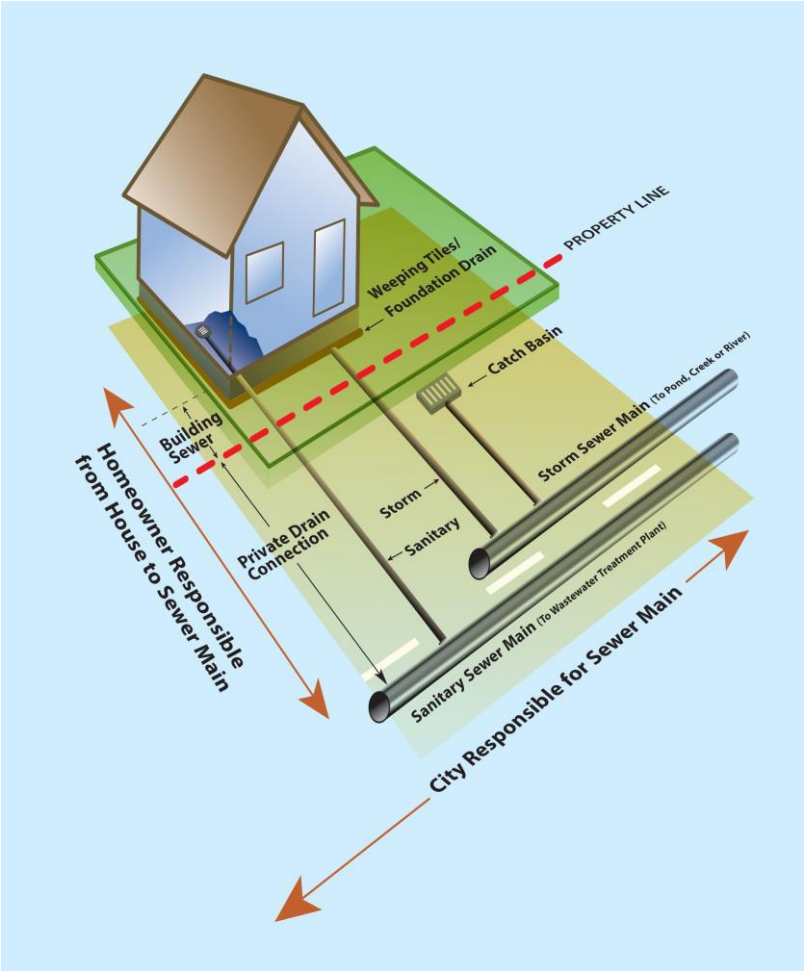
- Highlights projects completed that reduce discharge of phosophorous to the Thames River as well as projects in the 20 year plan
- Sewer overflows contribute to phosphorous loading
- One of the objectives is the replacement of combined sewers and managing the highest priority overflows as identified in PPCP

Sewer Separation Program

- DAP goal is to separate 80% of the combined sewer system by 2025
- This equates to 17km of sewer separation
- 6.2km removed, and another 1.45km will be removed in 2021
- This included many sewers in the downtown that contribute to priority overflows identified in the PPCP

Inflow Source: Weeping Tiles

- Weeping tiles were connected to sanitary sewer between the 1920s and 1980s
- That makes these sanitary sewers “partially combined” as the weeping tiles are a point of inflow
- Leading cause of basement flooding
- Approximately 50,000 weeping tile connections



Weeping Tile Disconnection

Basement Flooding Grant Program

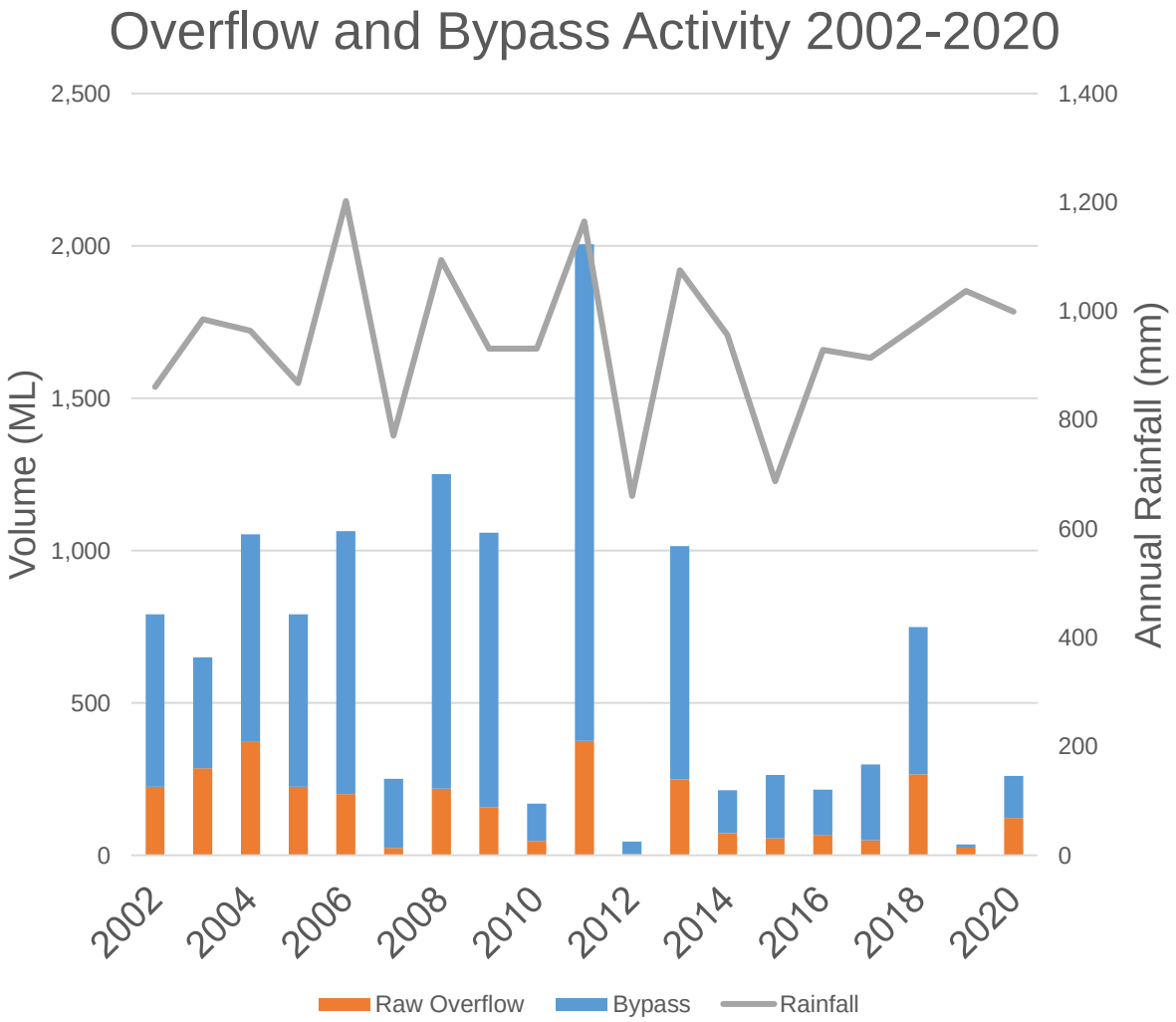
- Subsidy of 90% of costs to separate weeping tiles from the sanitary sewer and install sump pumps and backflow valves
- Applied for by individual homeowners
- Average of over 60 grants approved each year

Targeted weeping tile disconnection program

- City initiated projects to target neighbourhoods for overall system benefit
- Budget of $1 million annually which is sufficient to disconnect approximately 30 homes

Historical Bypasses and Overflows

- Raw overflow volume < 0.17% of total wastewater treated
- 2018 stands out
  - Multiple intense rain events with snow melt
  - 75% of raw bypass before end of February
  - Greenway upgrade not complete



Recent Work

- Greenway Expansion
  - $40M to increase treatment capacity, add wet weather treatment and storage capacity
- Dingman Creek PS
  - $25M project to increase capacity in southeast London and increase ability to partially treat extreme flow events (2022)
- Adelaide WWTP Upgrades
  - Project to recover treatment capacity and construct wet weather storage tanks (2022)
- Pottersburg-Vauxhall System Optimization
  - Interconnection forcemain (2020) to allow full use of available treatment capacity
  - Wet weather treatment and storage facility (2022)
- Flood Protection at Greenway and Adelaide WWTP
  - $49M project to protect WWTPs from floods and enable full treatment to occur up to 100 year flood elevation (complete by 2025)

Wastewater Treatment Master Plan

- Wastewater Treatment Master Plan initiated
  - First Public Meeting April 22, 2021
- Develop strategy for collection and treatment of wastewater in London over the next 50 years
- Provide long term plan for wastewater infrastructure including treatment plants and pumping stations
- Minimizing bypasses and overflows at these facilities will be a key consideration in developing this plan

New Initiative: Unwanted Water

- The goal of this initiative is to give Committee and Council options for reducing sewage releases into the Thames River
- The focus will be to identify projects, policies, or programs that will reduce the amount of unwanted water getting into our wastewater collection system
- Additional benefit is that removing unwanted water also reduces the risk of basement flooding.
- Will include a series of reports with the next report brought to committee Q3 2021

Conclusions

- Unwanted water has many sources
- Multi-faceted approach required to address the various causes
- Ultimate goal is to protect properties from flooding and our environment from overflows and bypasses

Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Kelly Scherr, P. Eng., MBA, FEC, Managing Director,**
Environmental and Engineering Services and City Engineer
Subject: **Amendments to the Traffic and Parking By-law**
Date: **April 20, 2021**

Recommendation

That on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer, the proposed by-law, attached as Appendix 'A, B and C' **BE INTRODUCED** at the Municipal Council meeting to be held on May 4, 2021, for the purpose of amending the Traffic and Parking By-law (PS-113).

Linkage to the Corporate Strategic Plan

The following report supports the 2019 to 2023 Strategic Plan through the strategic focus area of **Building a Sustainable City** by improving safety, traffic operations and residential parking needs in London's neighbourhoods.

Analysis

1.0 Background Information

The Traffic and Parking By-law (PS-113) requires amendments (Appendix A, B and C) to address traffic safety, operations, construction and parking concerns. The amendments in the following sections are proposed.

2.0 Discussion and Considerations

2.1 No Stopping

2.1.1 Talbot Street

Due to the reconstruction of Talbot Street from York Street to King Street in 2019, which introduced parking and loading zone bays on both sides of the street, it has been determined that the existing rush hour route, 'no stopping 7:30 a.m. to 9:00 a.m.' is no longer required. It is recommended to remove the 'no stopping 7:30 a.m. to 9:00 a.m.' zone.

2.2 Limited Parking

2.2.1 Albert Street

A review of the existing parking regulation signs on Albert Street from Talbot Street to Ridout Street N discovered that the existing '2 hour 8:00 a.m. to 6:00 p.m. Monday to Saturday' time limited parking zone is not included in Schedule 6 Limited parking. It is recommended to amend Schedule 2 No Parking and Schedule 6 Limited Parking to coincide with the existing parking regulations signs.

2.3 Stop and Yield Signs

Victoria On The River

All road accesses within Victoria On The River subdivision are open to traffic. It is recommended ‘stop signs’ and ‘yield signs’ be implemented at the following locations:

Stop Signs

- Darington Place at Kettering Place
- Holbrook Drive at Seven Oaks Ridge;
- Kettering Place at Sheffield Boulevard;
- Leeds Cross at Sheffield Boulevard;
- Leeds Cross at Seven Oaks Ridge (west intersection);
- Seven Oaks Ridge at Leeds Cross (east intersection); and,
- Seven Oaks Ridge at Sheffield Boulevard.

Yield Signs

- Holbrook Drive at Sheffield Boulevard; and,
- Sheffield Boulevard at Holbrook Drive.

2.4 One-Way Streets

Due to the Downtown Loop construction on King Street, it is recommended to temporarily convert King Street from Clarence Street to Wellington Street from one-way traffic flow to two-way traffic flow, to support traffic and construction access needs during the construction project.

2.5 Speed Limits

Due to a significant increase in development on Westdel Bourne, it is recommended to reduce the posted speed from Kains Road to Elviage Road, from 60 km/h to 50 km/h.

Conclusion

Amendments are required to Schedule 1 (No Stopping), Schedule 2 (No Parking), Schedule 6 (Limited Parking), Schedule 10 (Stop Signs), Schedule 11 (Yield Signs), Schedule 12 (One-Way Streets) and Schedule 17 (Higher Speeds) to address the above changes.

Prepared by:	**Shane Maguire, P. Eng., Division Manager, Roadway Lighting and Traffic Control**
Submitted by:	**Doug MacRae, P. Eng., MPA, Director, Roads and Transportation**
Recommended by:	**Kelly Scherr, P. Eng., MBA, FEC, Managing Director, Environmental and Engineering Services and City Engineer**

April 12, 2021/

Attach: Appendix A – By-law to Amend the Traffic and Parking By-law (PS-113)
Appendix B – By-law to Amend the Traffic and Parking By-law (PS-113) to convert King Street from Clarence Street to Wellington Street from one-way traffic to two-way traffic

Appendix C – By-law to Amend the Traffic and Parking By-law (PS-113) to convert King Street from Clarence Street to Wellington Street from two-way traffic to one-way traffic

cc: Parking Office
Major Projects

APPENDIX A By-law to amend the Traffic and Parking By-law (PS-113)

Bill No.

By-law No. PS-113

A by-law to amend By-law PS-113 entitled, “A by-law to regulate traffic and the parking of motor vehicles in the City of London.”

WHEREAS subsection 10(2) paragraph 7. Of the *Municipal Act, 2001*, S.O. 2001, c.25, as amended, provides that a municipality may pass by-laws to provide any service or thing that the municipality considers necessary or desirable to the public;

AND WHEREAS subsection 5(3) of the *Municipal Act*, 2001, as amended, provides that a municipal power shall be exercised by by-law;

NOW THEREFORE the Municipal Council of The Corporation of the City of London enacts as follows:

1. No Stopping

Schedule 1 (No Stopping) of the By-law PS-113 is hereby amended by **deleting** the following row:

Column 1 Street	Column 2 Side	Column 3 From	Column 4 To	Column 5 Period
Talbot Street	East	King Street	York Street	7:30 am to 9:00 am

2. No Parking

Schedule 2 (No Parking) of the By-law PS-113 is hereby amended by **deleting** the following row:

Column 1 Street	Column 2 Side	Column 3 From	Column 4 To	Column 5 Period
Albert Street	North	Ridout Street N	Talbot Street	Anytime

Schedule 2 (No Parking) of the By-law PS-113 is hereby amended by **adding** the following rows:

Column 1 Street	Column 2 Side	Column 3 From	Column 4 To	Column 5 Period
Albert Street	North	Ridout Street N	A point 47 m east of Ridout Street N	Anytime

3. Limited Parking

Schedule 6 (Limited Parking) of the By-law PS-113 is hereby amended by **adding** the following row:

Column 1 Street	Column 2 Side	Column 3 From	Column 4 To	Column 5 Period
Albert Street	North	A point 47 m east of Ridout Street N	A point 31 m west of Talbot Street	Anytime

4. Stop Signs

Schedule 10 (Stop Signs) of the By-law PS-113 is hereby amended by **adding** the following rows:

Column 1 Traffic	Column 2 Street	Column 3 Intersection
Northbound	Darlington Place	Kettering Place
Westbound	Holbrook Drive	Seven Oaks Ridge
Westbound	Kettering Place	Sheffield Boulevard
Eastbound & Westbound	Leeds Cross	Sheffield Boulevard
Westbound	Leeds Cross	Seven Oaks Ridge
Eastbound	Seven Oaks Ridge	Leeds Cross
Eastbound & Westbound	Seven Oaks Ridge	Sheffield Boulevard

5. Yield Signs

Schedule 11 (Yield Signs) of the By-law PS-113 is hereby amended by **adding** the following rows:

Column 1 Traffic	Column 2 Street	Column 3 Intersection
Eastbound & Westbound	Holbrook Drive	Sheffield Boulevard
Northbound & Southbound	Sheffield Boulevard	Holbrook Drive

6. Higher Speed Limits

Schedule 17 (Higher Speed Limits) of the By-law PS-113 is hereby amended by **deleting** the following row:

Column 1 Highway	Column 2 From	Column 3 To	Column 4 Maximum Rate of Speed
Westdel Bourne	North limit of Westdel Bourne	A point 400 m south of Southdale Road W	60 km/h

Schedule 17 (Higher Speed Limits) of the By-law PS-113 is hereby amended by **adding** the following row:

Column 1 Highway	Column 2 From	Column 3 To	Column 4 Maximum Rate of Speed
Westdel Bourne	Elviage Drive	A point 400 m south of Southdale Road W	60 km/h

This by-law comes into force and effect on the day it is passed.

PASSED in Open Council on May 4, 2021

Ed Holder
Mayor

Catharine Saunders
City Clerk

First Reading – May 4, 2021
Second Reading – May 4, 2021
Third Reading – May 4, 2021

APPENDIX B By-law to amend the Traffic and Parking By-law (PS-113) to convert King Street from Clarence Street to Wellington Street from one-way traffic to two-way traffic.

Bill No.

By-law No. PS-113

A by-law to amend By-law PS-113 entitled, “A by-law to regulate traffic and the parking of motor vehicles in the City of London.”

WHEREAS subsection 10(2) paragraph 7. Of the *Municipal Act, 2001*, S.O. 2001, c.25, as amended, provides that a municipality may pass by-laws to provide any service or thing that the municipality considers necessary or desirable to the public;

AND WHEREAS subsection 5(3) of the *Municipal Act*, 2001, as amended, provides that a municipal power shall be exercised by by-law;

NOW THEREFORE the Municipal Council of The Corporation of the City of London enacts as follows:

1. One-Way Traffic

   Schedule 12 (One-Way Streets) of the By-law PS-113 is hereby amended by **deleting** the following row:

Column 1 Street	Column 2 From	Column 3 To	Column 4 Direction
King Street	Ridout Street N	Talbot Street	Eastbound

   Schedule 12 (One-Way Streets) of the By-law PS-113 is hereby amended by **adding** the following rows:

Column 1 Street	Column 2 From	Column 3 To	Column 4 Direction
King Street	Ridout Street N	Clarence Street	Eastbound
King Street	Wellington Street	Ontario Street	Eastbound

This by-law comes into force and effect on June 28, 2021.
PASSED in Open Council on May 4, 2021

Ed Holder
Mayor

Catharine Saunders
City Clerk

First Reading – May 4, 2021
Second Reading – May 4, 2021
Third Reading – May 4, 2021

APPENDIX C By-law to amend the Traffic and Parking By-law (PS-113) to convert King Street from Clarence Street to Wellington Street from two-way traffic to one-way traffic.

Bill No.

By-law No. PS-113

A by-law to amend By-law PS-113 entitled, “A by-law to regulate traffic and the parking of motor vehicles in the City of London.”

WHEREAS subsection 10(2) paragraph 7. Of the *Municipal Act, 2001*, S.O. 2001, c.25, as amended, provides that a municipality may pass by-laws to provide any service or thing that the municipality considers necessary or desirable to the public;

AND WHEREAS subsection 5(3) of the *Municipal Act*, 2001, as amended, provides that a municipal power shall be exercised by by-law;

NOW THEREFORE the Municipal Council of The Corporation of the City of London enacts as follows:

1. One-Way Traffic

   Schedule 12 (One-Way Streets) of the By-law PS-113 is hereby amended by **deleting** the following rows:

Column 1 Street	Column 2 From	Column 3 To	Column 4 Direction
King Street	Ridout Street N	Clarence Street	Eastbound
King Street	Wellington Street	Ontario Street	Eastbound

   Schedule 12 (One-Way Streets) of the By-law PS-113 is hereby amended by **adding** the following row:

Column 1 Street	Column 2 From	Column 3 To	Column 4 Direction
King Street	Ridout Street N	Ontario Street	Eastbound

This by-law comes into force and effect on December 3, 2021.
PASSED in Open Council on May 4, 2021

Ed Holder
Mayor

Catharine Saunders
City Clerk

First Reading – May 4, 2021
Second Reading – May 4, 2021
Third Reading – May 4, 2021

Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Kelly Scherr, P.Eng., MBA, FEC**
Managing Director, Environmental & Engineering Services, City Engineer
Subject: **Update on Resource Recovery Strategy Including Mixed Waste Processing**
Date: **April 20, 2021**

Recommendation

That, on the recommendation of the Managing Director, Environmental & Engineering Services and City Engineer the following actions **BE TAKEN:**

a) this report **BE RECEIVED** for information;

b) the Civic Administration **BE DIRECTED** to take no further action on the Unsolicited Proposal dealing with mixed waste processing; and

c) the Civic Administration **BE DIRECTED** to develop details and a background business engagement document to initiate a two-step public procurement process (Request for Qualifications followed by a Request for Proposals) for a resource recovery facility or facilities (including mixed waste processing, mechanical-biological treatment and waste conversion technologies), pilot project or commercial scale, and report back to Civic Works Committee by December 2021 with details on how the process will occur; it being noted that Civic Administration already have direction to examine the potential for small scale, demonstration facilities for resource recovery facilities as part of the London Waste to Resources Innovation Centre, subject to Municipal Council approval.

Executive Summary

The City of London has four major waste management projects underway:
1. Long-term Resource Recovery Strategy
2. 60% Waste Diversion Action Plan
3. Residual Waste Disposal Strategy
4. Transition to Extended Producer Responsibility Programs

This report focuses on updates as part of the development of the long-term Resource Recovery Strategy. A review of file information, reports and on-line sources suggest that there are a very limited number of mixed waste or partially mixed waste processing and advanced resource recovery facilities operating in Canada and the United States at this time. These kinds of facilities are much more common in Europe. In North America there have been a number of closures of first-generation facilities. However, in recent years there are a few that are establishing a longer track record in the business. The track record and experience in Europe is much longer and with better results.

Interest in advanced technologies in Ontario, other parts of Canada and parts of the United States remain high. Further research coupled with facility innovation at a few locations is providing the opportunity to build a stronger track record of success and a better appreciation of the risks, costs and benefits.

An Unsolicited Proposal for mixed waste processing was received by the City of London (Purchasing and Supply) on November 22, 2020. The unsolicited proposal was reviewed and staff are recommending no action be taken. Supporting this decision is information contained in this report including these summary details:

- The City has several public reports that highlight its interests in this area and ongoing research, information collection and review including progress in Ontario;
- In 2018, as part of a public Request for Information (RFI), the City received submissions from 26 vendors with technologies or access to technologies for mixed waste processing and advanced resource recovery;
- The City has set aside land beside the W12A Landfill Site for resource recovery facilities and related industries (Waste Management Resource Recovery Area and the potential development of Eco-Industrial Parks, as per The London Plan);
- The City established the concept of the London Waste to Resources Innovation Centre in 2015 and entered a five year program with Western University in 2019 to continue to examine opportunities to create more resources from materials traditionally sent to landfill;
- The City has not completed its long-term Resource Recovery Strategy including approved budgets;
- Provincial policy, technical direction and standards on mixed waste processing facilities and advanced resource recovery facilities is limited at this time;
- The Canada-European Union Comprehensive Economic and Trade Agreement (CETA), signed May 2017, has created numerous opportunities for both parties to enhance economic opportunities and trade; and
- The City is involved with a comprehensive Environmental Assessment for the expansion of the W12A Landfill. This is a priority project for the City.

City staff are recommending that details and a background business engagement document be prepared to initiate a two-step public procurement process (Request for Qualifications followed by a Request for Proposals) for a resource recovery facility, pilot project or commercial scale. A report to Civic Works Committee and Council to receive further direction is proposed for December 2021.

Linkage to the Corporate Strategic Plan

Municipal Council continues to recognize the importance of solid waste management and the need for a more sustainable and resilient city in the development of its 2019-2023 Strategic Plan for the City of London. Specifically, London's efforts in solid waste management address the three following areas of focus: Building a Sustainable City; Growing our Economy; and Leading in Public Service.

On April 23, 2019, the following was approved by Municipal Council with respect to climate change:

> *Therefore, a climate emergency be declared by the City of London for the purposes of naming, framing, and deepening our commitment to protecting our economy, our ecosystems, and our community from climate change.*

The developing Resource Recovery Strategy, including the implementation of the 60% Waste Diversion Action Plan (and the Green Bin program), addresses various aspects of climate change mitigation within the waste management services area including greenhouse gas (GHG) reduction.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

Some relevant reports that can be found at www.london.ca under Council and Committee meetings include:

- Case #10: Revised Implementation (Case #1, 2020 Budget) - 60% Waste Diversion Action Plan (January 12, 2021 meeting of Council)

- Updates – 60% Waste Diversion Action Plan Including the Green Bin Program (November 17, 2020 meeting of the Civic Works Committee (CWC), Item #2.2)
- Business Case 1 – 60% Waste Diversion Action Plan – 2020-2023 Multi -Year Budget (January 30, 2020 meeting of the Strategic Priorities & Policy Committee (SPPC), Item #4.12a)
- Current and Proposed Actions for Reducing and Managing Plastics I the Residential Sector and the Role for the Hefty® EnergyBag® Pilot Project (July 23, 2019 meeting of the CWC, Item #2.5)
- Update and Next Steps for the London Waste to Resources Innovation Centre (April 16, 2019 meeting of the CWC, Item #2.4)
- Memorandum of Understanding with Green Shields Energy as Part of the London Waste to Resources Innovation Centre (April 16, 2019 meeting of the CWC, Item #2.5)
- 60% Waste Diversion Action Plan – Updated Community Feedback (September 25, 2018 meeting of the CWC, Item #3.2)
- Public Participation Meeting 60% Waste Diversion Action Plan – Additional Information (September 25, 2018 meeting of the CWC, Item #3.2)
- 60% Waste Diversion Action Plan (July 17, 2018 meeting of the CWC, Item #3.1)

1.2 Context

The City of London has four major waste management projects underway:

1. Long-term Resource Recovery Strategy - involves the development of a plan to maximize waste reduction, reuse, recycling, resource recovery, energy recovery and/or waste conversion in an economically viable and environmentally responsible manner. Resource Recovery strategies (i.e., which includes waste diversion strategies) are developed and approved at the local government level. Technologies are subject to approvals and regulations from the Provincial government. Appendix A contains previously released information (60% Waste Diversion Action Plan report, 2018) that helps define mixed waste processing and related advanced resource recovery technologies. The 60% Waste Diversion Action Plan is a major step for the long-term Resource Recovery Strategy.

2. 60% Waste Diversion Action Plan - proposes a set of 21 actions to achieve 60% diversion of residential waste by the end of 2022. The budget for the multi-year implementation (2020-2023 Multi-Year Budget Business Case #1) was approved March 2, 2020. Shortly after this date, the COVID-19 state of emergency was declared provincially on March 17, 2020, and locally March 20, 2020. A revised implementation plan and budget was approved by Municipal Council on January 12, 2021 that includes the implementation of a Green Bin program.

3. Residual Waste Disposal Strategy - involves the development of a long-term plan to manage residual waste (generally waste after diversion and resource recovery initiatives) and involves completion of an Individual Environmental Assessment (EA) for the expansion of the W12A Landfill as prescribed by the Ministry of the Environment, Parks & Conservation (MECP). The Individual EA requires approval by the Minister of the Environment, Parks & Conservation and Cabinet.

4. Transition to Extended Producer Responsibility Programs - for several years, a number of materials that have been traditionally managed by municipalities have been transitioning to new management systems whereby industry has taken greater administrative and financial responsibility for the materials it creates (Table 1).

Table 1: Status of Programs Transitioning to Extended Producer Responsibility

Material	Transition Status	Transition (Proposed) Date	How does the City get Involved?
Used Tires	Complete	January 1, 2019	Accept at EnviroDepots on behalf of industry producers

Material	Transition Status	Transition (Proposed) Date	How does the City get Involved?
Batteries	Complete	July 1, 2020	Accept at EnviroDepots on behalf of industry producers
Electronics	Complete	January 1, 2021	Accept at EnviroDepots on behalf of industry producers
Municipal Hazard and Special Waste (HSW)	Draft Regulation	Proposed July 1, 2021	Currently accepted at W12A HSW Building
Blue Box Materials	Draft Regulation	Proposed Jan. 1, 2023 to Dec. 31, 2025	Part of the Core Team participating in regulation and process development

This report deals primarily with the first of four projects and includes several updates and the next steps regarding mixed waste processing, advanced resource recovery and the long-term Resource Recovery Strategy.

2.0 Discussion and Considerations

This section (and Appendices B and C) contains details on mixed waste processing and related technologies in the following areas:

2.1 Overview of Recent History on Mixed Waste Processing and Related Technologies in Canada, United States and Europe (and Appendix B)
2.2 Current Experience in Ontario (and Appendix C)
2.3 Current Experience in London
2.4 Review of Unsolicited Proposal
2.5 Next Steps

2.1 Recent History on Mixed Waste Processing and Related Technologies in Canada, United States and Europe (and Appendix B)

[The following details are a work in progress and will be updated as new information is shared with or obtained by City staff.]

A review of file information, reports and on-line sources suggest that there are a very limited number of mixed waste or partially mixed waste processing facilities operating in Canada at this time. Available details (Appendix B) suggest that at least 10 facilities have either closed or were re-engineered away from mixed waste processing. Many of these facilities were older, first generation facilities.

The Halifax Regional Municipality has recently proposed to close (December 2020) the Front End Processor/Waste Stabilization Facility (FEP/WSF) that has been in operation since 1995. It remains in operation, but its future is uncertain. The City of Edmonton is operating a facility to create refuse derived fuel from mixed waste to send to the Enerkem gasification system. In Nova Scotia, Sustane Technologies (pyrolysis technology) has been processing mixed waste since 2019. These are likely the only three facilities managing a mixed waste stream in operation in Canada. This does not include technologies that combust waste, with and without energy recovery.

Experience in the United States is very similar (Appendix B). Most first-generation, mixed waste processing and composting facilities have closed or have been re-engineered to meet newer program needs (e.g., acceptable lower diversion and recovery rates, more stringent end product quality, etc.). A few, newer facilities have been established in the last five years and are developing a proven track record. However, a few newer facilities have also been closed or re-engineered as the original design was not meeting performance or contractual requirements.

Experience in Europe and a few other countries with large scale mixed waste processing and resource recovery facilities indicate that these facilities can meet local requirements. For example, a 2017 report identified 570 Mechanical Biological Treatment (MBT) facilities operating in Europe. The challenge for Canadian municipalities is understanding the local conditions in which European MBT facilities operate, contractual requirements, how risks are shared or assumed, operating and capital costs, etc. There is also emerging information that suggests that some countries in Europe may be moving away from mixed waste processing and MBT facilities in favour of source separation systems for recycling and organics. For example, MBT will no longer count towards EU recycling targets after 2026. Starting January 1, 2027, the Waste Framework Directive requires that only separately collected and processed organics will be counted as diversion and meet the requirements of the Directive.

Further work is underway to understand the European Directives with respect to source separation programs for organics and the role of mixed waste processing and MBT facilities. A recent blog posting by the Swedish Environmental Protection Agency (Appendix B) further confirms more analysis is required on the future direction of MBT facilities in Europe.

2.2 Current Experience and Direction in Ontario

The Ministry of the Environment and Climate Change (now the Ministry of Environment, Conservation and Parks - MECP) issued the Food and Organic Waste Policy Statement on April 30, 2018. The document establishes the following targets and timelines for organics management in Ontario:

- larger municipalities that currently do not have a Green Bin program need to implement an organics management program that will achieve at least a 70 per cent waste reduction and resource recovery of food and organic waste generated by single-family dwellings by 2025.

- multi-residential buildings need to implement an organics management program that will achieve at least a 50 per cent waste reduction and resource recovery of food and organic waste by 2025.

The document states the:

> "*collection of source separated food and organics waste is the preferred method of servicing single family dwellings*" but notes that "*alternatives to the collection of source separated food and organics waste may be used if it is demonstrated that provincial waste reduction and resource recovery targets can be achieved efficiently and effectively*".

The rules and regulations around mixed waste processing are evolving as current regulations do not explicitly address mixed waste processing or the use of products produced (e.g., compost, digestate, solid recovered fuel, etc.). There are no operating mixed waste processing facilities in Ontario. All facilities have closed or were re-engineered as noted in Appendix B.

Through the Regional Public Works Commissioners of Ontario (RPWCO) Waste Subcommittee, mixed waste processing and advanced resource recovery (e.g., waste conversion technologies) initiatives and actions are shared quarterly among the 20 member municipalities. The most active municipalities are Region of Durham, Region of Peel, City of Toronto and the City of London (section 2.3). Appendix C contains updates from Durham, Peel and Toronto. Research has also been undertaken in the Region of York and the Region of Niagara. The County of Oxford, not a member of RPWCO, was very active with advanced resource recovery facilities until 2019 when it stopped its procurement process.

2.3 Current Experience and Direction in London

In addition to ongoing work through RPWCO, the City of London currently has a number of activities underway with respect to mixed waste processing and advanced resource recovery initiatives:

- As part of the 60% Waste Diversion Action Plan, Municipal Council approved the direction to proceed with a pilot project for mixed waste processing for waste collected from a portion of London's multi-residential buildings. City staff are currently working on current opportunities and alternative plans for Council's consideration.

- Research at the London Waste to Resources Innovation Centre including the NSERC Industrial Research Chair Thermochemical Conversion of Biomass and Waste to Bioindustrial Resources administered by Western University (2019), has been under way since 2015. Academic research, laboratory and bench scale testing, and field work ranges from feedstock handling to material quality through to technologies and end market products (e.g., mechanical recycling, chemical recycling, material conversion, alternative low carbon fuel, solid recover fuel, etc.).

- As part of the the London Waste to Resources Innovation Centre, the City has a non-binding Memorandum of Understanding (MoU) with Green Shields Energy - GSE (until December 31, 2022). The MoU sets out the short-term objective of collaboration between the City and GSE to undertake testing and develop data/information on the viability of Hydrogen Reduction technology to manage various non-hazardous waste streams including household garbage. This research has the potential to move to constructing and operating a demonstration scale facility containing a Hydrogen Reduction unit designed for demonstrating the effectiveness of the process on the conversion of various non-hazardous wastes.

  A provisional patent was issued for the technology on February 2021 for Canada and USA. The Intellectual Property (IP) is fully protected. The final patent is pending. Discussions are ongoing with MECP on the required approvals process for the technology under a demonstration Environmental Compliance Approval. Financial and operating arrangements are being developed and will be subject of a future report to Committee and Council.

- London's Hefty® EnergyBag® Pilot Project (for hard-to-recycle plastic items that are currently placed in the garbage), launched in late 2019 and proceeded as planned until March 2020. A number of adjustments have been made to address operating through the pandemic including delaying measurement studies and postponing expansion until a clearer picture is available. Revisions will be launched in May 2021. This project includes working with a number end markets and advanced resource recovery technologies.

2.4 Review of Unsolicited Proposal for Mixed Waste Processing

The City of London welcomes unsolicited proposals from individuals and organizations that could benefit London. The City will consider proposals that:

- Satisfy a City of London need or problem
- Are innovative or unique opportunities to improve service delivery
- Demonstrate significant value or saving, or mitigate risks
- Have significant revenue generation or economic development potential

Unsolicited proposals are subject to the City of London's Procurement of Goods and Services Policy as per section 21.2.

21.2 Direct Solicitation

a. Unsolicited proposals received by the City shall be referred to the Manager of Purchasing and Supply for review.

b. Any procurement activity resulting from the receipt of an unsolicited proposal shall comply with the provisions of this Policy.
c. A contract resulting from an unsolicited proposal shall be awarded on a non-competitive basis only when the procurement complies with the requirements of a non-competitive procurement, as detailed in Section 14.

An unsolicited proposal for mixed waste processing was received by Purchasing and Supply on November 22, 2020. The City of London currently collects about 90,000 tonnes of residential waste including about 3,000 tonnes of bulky waste (e.g., mattresses, couches, etc.) from homes with curbside service.

City Staff - Summary Comments:

The unsolicited proposal contains preliminary information that demonstrates at a high level what mixed waste processing could achieve in London. The basic information is supported by proven experience at a smaller mixed waste processing facility in Europe. There is no similar facility operating in North America at this time.

It is not possible to conduct a thorough review of this unsolicited proposal as it essentially a starting point for a negotiation for a project and not a complete proposal that can be reviewed on its own merits.

In consultation with staff from Purchasing and Supply and Finance Services, it was determined that additional details on the unsolicited proposal should not be obtained as there are likely many competitive suppliers of this service that would have interest in an opportunity to build, operate and showcase their technology, if the opportunity was made available. Supporting this decision are the following:

- The City has public reports that highlight its interests in a future where mixed waste processing and/or advanced resource recovery facilities could be located near the W12A Landfill.

- In 2018, as part of a public Request for Information (RFI), the City received submissions from 26 vendors with technologies or access to technologies for mixed waste processing and advanced resource recovery. Of the 26 submission, 20 vendors included a form of mixed waste processing (i.e., different levels of processing) as the front end to the overall technology solution.

- The City has set aside land beside the W12A Landfill Site for resource recovery facilities and related industries (Waste Management Resource Recovery Area and the potential development of Eco-Industrial Parks, as per of The London Plan).

- The City established the London Waste to Resources Innovation Centre in 2015, and expanded in collaboration with Western University and many business partners (April 2019), and has been working with a number of different new, emerging and next generation technologies for turning waste materials into resources.

- The City has not completed its long-term Resource Recovery Strategy, has not prepared long-term operating and capital budget costs and potential savings (e.g., prepare a business case), greenhouse gas (GHG) reduction benefits, and has not received Council direction in this regard.

- Provincial policy and technical direction on mixed waste processing facilities and advanced resource recovery facilities is limited at this time. The Province has expressed strong support for further progress in these areas; however specific standards, guidelines and operating practices do not exist. These will be developed as experience is gained with technologies. At this point in time, the Provincial government has not expressed any new financial support for innovative projects of this nature.

- The Canada-European Union Comprehensive Economic and Trade Agreement (CETA), signed May 2017, has created numerous opportunities for both parties to enhance economic and trade. With respect to mixed waste processing and/or advanced resource recovery technologies, companies that traditionally may not pay attention to the Canadian marketplace, may now look at it as an entry point to North American opportunities and partnerships.

- As noted in Section 1.2, the City is involved with a comprehensive Environmental Assessment for the expansion of the W12A Landfill. This is a priority project for the City and is following a prescribed process for Individual Environmental Assessments. The Draft Environmental Assessment Study Report was submitted to CWC on March 30, 2021 and to Council on April 13, 2021. The timetable for the current priority activities, which has bearing on all future activities near the landfill, is found on Table 2.

Table 2: W12A Landfill Draft Environmental Assessment Study Timetable

Date	Step
April 20 to May 19, 2021	• Circulate Draft EASR to GRT and other stakeholders. Place Draft EASR on-line and at City Hall for review.
Late June/Early July, 2021	• Review of EASR by Waste Management working Group (WMWG).
July 27, 2021 (tentative)	• CWC to hold public participation meeting for EASR. • CWC to consider recommending submission to MECP.
August 10, 2021	• Council approval of CWC recommendation.
August 19, 2021	• Formal submission of Proposed EASR to MECP (includes notice to all stakeholders).
August 19, 2021 to Mid-March 2022 or later	• MECP provides a seven week review period for stakeholders to provide comments to the MECP. • MECP evaluates EASR submission and makes recommendation to the Minister. • Minister makes Decision to Approve or Reject.

The above details have led to staff's determination that no further action be taken on the unsolicited proposal. Furthermore, the Procurement of Goods and Services Policy section 6.3 is very clear regarding Prohibitions:

> 6.3 Official Point of Purchasing Contact and Lobbying Prohibition
>
> a. The City is committed to the highest standards of integrity with respect to the purchase of goods and/or services and managing the processes by which goods and/or services are acquired. The official point of purchasing contact shall be a member of the Purchasing and Supply Team. Should it be necessary or desirable to have a contact person to respond to technical issues that person shall be named in the competitive bid documents. All communications will be made by these individuals and during the procurement process, no bidder or person acting on behalf of the bidder or group of bidders shall contact any elected official, consultant or any employee of the City to attempt to seek information or to influence the award of the contract. Any activity designed to influence the decision process, including, but not limited to, contacting any elected official, consultant or employee of the City for such purposes as meetings of introduction, social events, meals or meetings related to the selection process, shall result in disqualification of the bidder for the project to which the influential activity is deemed to be directed.
>
> - Notwithstanding the foregoing, this prohibition does not apply to meetings specifically scheduled by the City Purchasing and Supply group for

presentations or negotiations. Any bidder found to be in breach of this Policy shall be subject to immediate disqualification from the procurement process and may be prohibited from future opportunities at the discretion of City Council.

b. In addition, no bidder who has been awarded the contract shall engage in any contact or activities in an attempt to influence any elected official or any employee of the City with respect to the purchase of additional enhancements, options, or modules. However, a contractor may communicate with the appropriate member of the Purchasing and Supply Team, the Manager of Purchasing and Supply or the City Treasurer for purposes of administration of the contract during the term of the contract.

c. The determination of what constitutes influential activity is in the sole discretion of the Manager of Purchasing and Supply, acting reasonably, and not subject to appeal.

d. Contract award decisions shall be based on clear, transparent and objective criteria that is applied free from political considerations or political interference.

2.5 Next Steps

The following are the proposed next steps to engage the marketplace and complete the long-term Resource Recovery Strategy (Table 3).

Table 3: Tentative Timetable for Marketplace Engagement and Completion of the Resource Recovery Strategy

Tentative Timeframe	Step
May to September 2021	Hold discussions and reviews of procurement processes in Region of Durham and Peel for mixed waste processing and related technologies. Check in with other municipalities via RPWCO.
July to December 2021	Finalize draft guiding principles, framework and processes for the long-term Resource Recovery Strategy including the role for the London Waste to Resources Innovation Centre and emerging economic development opportunities for the circular economy. Report to CWC and Council to receive direction.
July to December 2021	Prepare details and a background business engagement document to initiate a two-step public procurement process (Request for Qualifications followed by a Request for Proposals) for a resource recovery facility or facilities (including mixed waste processing, mechanical-biological treatment and waste conversion technologies), pilot project or commercial scale. This includes examining opportunities for funding from senior government, Federation of Canadian Municipalities (FCM) Green Fund and other technical support and investment agencies. Report to CWC and Council to receive further direction.
Q1 to Q3 2022	Subject to Council approval, initiate a Request for Qualifications process followed by a Request for Proposals.
Q3/Q4 2022	Complete final draft of long-term Resource Recovery Strategy and initiate a community engagement process.
Q3 2022 to Q2 2023	Very tentative – bring the above activities to completion and Council approval.

3.0 Financial Impact/Considerations

There are no financial impacts or considerations with this report. The report does refer to estimated capital and operating costs obtained from articles, reports, documents including technical documents completed for the Region of Durham, Region of Peel and City of Toronto.

Subject to Council direction, the next steps would include developing more details on preliminary cost estimates, landfill cost savings, economic development opportunities, GHG reduction benefits, and potential financing and funding opportunities for inclusion in the Resource Recovery Strategy. Upon completion and approval of the Strategy, any financial impacts would be brought forward for Council's consideration through a future budget process.

Conclusion

Mixed waste processing and advanced resource recovery technologies have had a challenging past in Canada and United States. Successes in Europe highlight the potential of these alternatives to landfill. However, the changing situation in Europe also needs to be better understood in Canada.

Interest in Ontario among a number of municipalities continues to grow as municipalities look at their long-term waste management systems. The City of London is well positioned for future opportunities using continuous improvement thinking and a systematic approach that addresses financing, social responsibility, the environment and climate change.

Provincial and Federal government legislation, regulation and policies will continue shape waste elimination, reduction and reuse, waste diversion, resource recovery and final disposal. Senior levels of government have a very important role to play in the advancement of technologies.

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Appendix A Definitions of Mixed Waste Processing and Advanced Resource Recovery Technologies

Appendix B Additional Information - Recent History on Mixed Waste Processing and Related Technologies in Canada, United States and Europe

Appendix C Current Experience in Ontario

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Appendix A
Definitions of Mixed Waste Processing and Advanced Resource Recovery Technologies

The details below were first printed in 60% Waste Diversion Action Plan, July 2018. This section contains information in the following areas:

1. Background - Traditional Waste Diversion and Waste Management Technologies and Practices
2. Resource Recovery and Resource Recovery Systems
3. Integrated Solid Waste Management
4. Advanced Resource Recovery Technologies and Practices
   a) Anaerobic Digestion (AD - Biogas)
   b) Mixed Waste Processing (MWP)
   c) Mechanical/Biological Treatment (MBT)
   d) Waste Conversion Technologies (WCT)
   e) Energy from Waste (EFW)

1. Background - Traditional Waste Diversion and Waste Management Technologies and Practices

Generally, in Ontario, waste management systems include variations on the following practices to reach higher levels of waste diversion:

- Waste avoidance/prevention/minimization (not created in the first place)
- Reuse/refurbish/repurpose (for use again)
- Source separated recyclables (to be collected, processed, marketed and re-manufactured)
- Source separated leaf and yard waste (to be collected, processed and marketed)
- Source separated organics (food and other organics wastes) (to be collected, processed and marketed). Processing technologies generally include aerobic composting and anaerobic digestion (AD) technologies
- Energy from waste (EFW) through combustion
- Landfill

To go beyond 60% waste diversion will require the use of more advanced waste diversion and resource recovery technologies and practices.

The field of solid waste management has a plethora of definitions that fall into different categories including:

- Regulatory definitions usually defined by the Province of Ontario although some are defined at the Federal Government;

- By-law definitions usually defined by municipalities (and not always consistent from one municipality to the next); and

- Definitions created by waste management, recycling and other related organizations that have no legal foundation; however, they are often used by the members and adopted by others.

Some definitions often have a historical basis and have not been modernized; although the technologies within the definition are different than in the past. The inconsistency in legal definitions can be problematic when different provinces are compared. In addition, different technologies can be lumped together in some definitions with little understanding as to why that is the case. The section highlights a number of terms and some different definitions.

2. Resource Recovery and Resource Recovery Systems

"Resource recovery means the extraction of useful materials or other resources from things that might otherwise be waste, including through reuse, recycling, reintegration, regeneration or other activities. This includes the collection, handling, and processing of food and organic waste for beneficial uses. Although energy from waste and alternative fuels are permitted as waste management options, these methods are not considered resource recovery. The recovery of nutrients, such as digestate from anaerobic digestion, is considered resource recovery.

Resource recovery system means any part of a waste management system that collects, handles, transports, stores or processes waste for resource recovery purposes, but does not include disposal."

Source – Ministry of the Environment & Climate Change, Food and Organic Waste Policy Statement, April 2018, https://www.ontario.ca/page/food-and-organic-waste-framework

3. Integrated Solid Waste Management

"Integrated Solid Waste Management (ISWM) is a comprehensive waste prevention, recycling, composting, and disposal program which works cohesively to prevent, recycle, and manage solid waste in ways that most effectively protect human health and the environment. ISWM considers local needs and conditions, and then applies the most appropriate combination of waste management approaches for that situation. The major components of ISWM activities are waste prevention, recycling and composting, resource recovery, and, disposal in properly designed, constructed, and managed landfills."

Sources - based on the EPA definition noting that determining a date of this definition is difficult because many current documents are now archived on the USEPA website. Environment Canada and the Ministry of the Environment & Climate Change do not have specific definitions; however, many municipalities in Ontario and across Canada have created definitions to meet their needs.

4. Advanced Resource Recovery Technologies and Practices

Generally, advanced resource recovery technologies and practices fall under one of these categories:

a) Anaerobic Digestion (AD - Biogas)
b) Mixed Waste Processing (MWP)
c) Mechanical/Biological Treatment (MBT)
d) Waste Conversion Technologies (WCT)
e) Energy from Waste (EFW)

The literature does not contain consistent definitions for these technologies and sometimes groups of technologies may be classified under a single heading.

a) Anaerobic Digestion (AD - Biogas)

AD facilities can be listed under both traditional (as noted above because it is a proven technology in Ontario) and advanced in the case of Ontario as most AD experience has been associated with farm operations. With respect to AD as part of Mechanical-Biological Treatment (MBT) or as part of a mixed waste processing (MWP) system, this would be considered advanced and belongs in this section.

"Anaerobic digestion means the decomposition of organic matter by bacteria in an oxygen-limiting environment (as defined in Regulation 347 under the Environmental Protection Act). The biogas generated through anaerobic digestion can be used to fuel electrical generators, or it can be further processed into renewable natural gas. The digestate may also be used as a soil amendment that is most commonly used in agricultural operations."

Source – Ministry of the Environment & Climate Change, Food and Organic Waste Policy Statement, April 2018, https://www.ontario.ca/page/food-and-organic-waste-framework

"What is Biogas? Biogas is a renewable source of methane, the main ingredient in natural gas. It can be used for heating and cooling, or to generate electricity that can be used on-site or fed into the distribution grid. It can be refined into renewable natural gas that can be injected into gas pipelines or compressed and used as a vehicle fuel. The entire system, including the energy generating components, is typically referred to as a biogas facility or a biogas plant.

Biogas is produced when organic materials — anything from municipal organic wastes or bio-solids, food processing by-products, or agricultural manure and crop residues — break down in an oxygen-free environment. The process is called anaerobic digestion (AD) and usually occurs in a specialized tank or vessel – the anaerobic digester. AD is also the process that generates biogas or landfill gas (LFG) within landfills.

Anaerobic digesters have a number of end products, including digestate, a nutrient-rich slurry that can be applied directly on agricultural land, or material that is composted and then used for a range of purposes. Digester solids are materials from after de-watering that can be composted, and are well suited to be mixed with leaf and yard waste."

Source - Canadian Biogas Association, Municipal Guide to Biogas, March 2015 https://www.biogasassociation.ca/

b) Mixed Waste Processing

"Mixed-waste processing involves no generator separation of waste, with all waste processed at what's been called a "dirty" material recovery facility (MRF).[1] Recyclables are then pulled out at the MRF through a combination of manual and mechanical sorting. The sorted recyclable materials may undergo further processing required to meet technical specifications established by end-markets while the balance of the mixed waste stream is sent to a disposal facility such as a waste-to-energy facility or landfill".[2]

* Source(s)
[1] Waste 360 http://www.waste360.com/mrfs/10-points-explain-mixed-waste-processing
[2] Wikipedia https://en.wikipedia.org/wiki/Materials_recovery_facility

"Mixed waste processing means resource recovery processes that recover food waste or organic waste from waste streams where food and organic waste is co-mingled with other wastes."

Source – Ministry of the Environment & Climate Change, Food and Organic Waste Policy Statement, April 2018, https://www.ontario.ca/page/food-and-organic-waste-framework

c) Mechanical/Biological Treatment (MBT)

"Mechanical Biological Treatment (MBT) technologies are pre-treatment technologies which contribute to the diversion of MSW from landfill when operated as part of a wider integrated approach involving additional treatment stages. Mechanical Biological Treatment (MBT) is a generic term for an integration of several mechanical processes commonly found in other waste management facilities such as Materials Recovery Facilities (MRFs), composting or Anaerobic Digestion plant. MBT plants can incorporate a number of different processes in a variety of combinations. MBT therefore compliments, but does not replace, other waste management technologies such as recycling and composting as part of an integrated waste management system. MBT plants include the:

- *Pre-treatment of waste going to landfill;*
- *Diversion of non-biodegradable and biodegradable MSW going to landfill through the mechanical sorting of MSW into materials for recycling and/or energy recovery as refuse derived fuel (RDF);*

- *Diversion of biodegradable MSW going to landfill by:*
- *Reducing the dry mass of MSW prior to landfill;*
- *Reducing the biodegradability of MSW prior to landfill;*
- *Stabilization into a compost-like output (CLO) for use on land;*
- *Conversion into a combustible biogas for energy recovery; and/or*
- *Drying materials to produce a high calorific organic rich fraction for use as RDF."*

Source - Mechanical Biological Treatment of Municipal Solid Waste, February 2013, Dept. of Environment, Food and Rural Affairs, www.defra.gov.uk

d) Waste Conversion Technologies (WCT)

Waste Conversion Technologies (WCT) include the broad range of technologies which are applied to recover the inherent stored resource value of targeted waste feedstocks and/or MSW and to make these resources available for use rather than for disposal.

"There are a large number of technologies on the market at the moment and the use of many terms and definitions, with often different meaning. This reduces the possibility of comparing the different options. This chapter lists the most important concepts used in this field alphabetically.

- *Gasification is the thermal breakdown of waste under oxygen starved conditions (oxygen content in the conversion gas stream is lower than needed for combustion), thus creating a syngas (e.g. the conversion of coal into city gas).*
- *Plasma gasification is the treatment of waste through a very high intensity electron arc, leading to temperatures of > 2,000°C. Within such a plasma, gasifying conditions break the waste down into a vitrified slag and syngas.*
- *Pyrolysis is the thermal breakdown of waste in the absence of air, to produce char, pyrolysis oil and syngas (e.g. the conversion of wood into charcoal)."*

Source - International Solid Waste Association (ISWA), Alternative Waste Conversion Technologies, 2013

"New technologies to convert municipal and other waste streams into fuels and chemical commodities, termed conversion technologies, are rapidly developing. Conversion technologies are garnering increasing interest and demand due primarily to alternative energy initiatives. These technologies have the potential to serve multiple functions, such as diverting waste from landfills, reducing dependence on fossil fuels, and lowering the environmental footprint for waste management. Conversion technologies are particularly difficult to define because their market is in development and many of their design and operational features are not openly communicated by vendors. EPA's Office of Research and Development conducted research to evaluate and develop a "State of Practice" report for State and local decision-makers on the suite of emerging waste conversion technologies."

Source - USEPA State of Practice for Emerging Waste Conversion Technologies, 2012 https://cfpub.epa.gov/si/si_public_record_report.cfm?dirEntryId=305250

e) Energy-from-Waste (EFW)

EFW is "A facility that generates steam and/or electricity through the combustion of municipal solid waste."

Source – Canadian Resource Recovery Council, http://www.resourcerecovery.ca/info/glossary/

"Energy-from-Waste is any technology, which recovers energy from the management/processing of waste materials. This includes Anaerobic Digestion, Mass Burn, Gasification, Plasma Gasification, and Landfill Gas Recovery.

Waste Derived Fuel is any technology designed to turn waste materials into a fuel product with the recovery of recyclables materials as part of the fuel development process."

Source – Ontario Waste Management Association, Guiding Principles Integrated Solid Waste Resource Recovery and Utilization (OWMA EFW/WDF Committee, November 2011) https://www.owma.org/articles/guiding-principles-on-integrated-solid-waste-recovery-and-utilization

Energy can be recovered from waste by various (very different) technologies. It is important that recyclable material is removed first, and that energy is recovered from what remains, i.e. from the residual waste. Energy from waste (EFW) technologies include:

- *Combustion in which the residual waste burns at 850°C and the energy is recovered as electricity or heat*
- *Gasification and pyrolysis, where the fuel is heated with little or no oxygen to produce "syngas" which can be used to generate energy or as a feedstock for producing methane, chemicals, biofuels, or hydrogen (see also landfill gas and sewage gas)*
- *Anaerobic digestion, which uses microorganisms to convert organic waste into a methane-rich biogas that can be combusted to generate electricity and heat or converted to biomethane. This technology is most suitable for wet organic wastes or food waste. The other output is a biofertilizer.*

Source – Renewable Energy Association, United Kingdom https://www.r-e-a.net/renewable-technologies/energy-from-waste

Energy recovery from waste is the conversion of non-recyclable waste materials into usable heat, electricity, or fuel through a variety of processes, including combustion, gasification, pyrolization, anaerobic digestion and landfill gas recovery. This process is often called waste to energy (WTE).

Source - US EPA website, no date provided https://www.epa.gov/smm/energy-recovery-combustion-municipal-solid-waste-msw

Appendix B
Additional Information - Recent History of Mixed Waste Processing and Related Technologies in Canada, United States and Europe

Canadian Experience

There is limited experience with mixed waste processing and advanced resource recovery technologies for mixed waste in Canada. Past and current experience ranges from being positive and leading-edge to a number of facility closures, legal issues and facility re-engineering.

Newer information, knowledge and technical studies, more applicable to Ontario, is being produced and shared by companies such as Organic Waste Systems (OWS), 3Wayste North America, Anaergia Inc., Canada Fibers Ltd/GFL Environmental Inc. (CFL/GFL), Enerkem, Sustane Technologies Inc., Bradam Energies, Miller Waste Systems, and others. These are important contributions to furthering knowledge, understanding, complexities, benefits and risks associated with these technologies.

Status of many facilities (not including combustion facilities) in Canada is listed below on Table B-1. It is important to recognize that many facilities and technologies are designed for local and regional solutions, that circumstances and needs change, and facility closures often have multiple reasons behind decisions (e.g., financial, social, environmental, competing technologies, etc.). Any facility or technology that closes or is re-engineered has important learnings for municipal governments that contemplate investment and/or use of these new, emerging and next generation technologies.

Table B-1: Status of Mixed Waste Processing and Advanced Resource Recovery Facilities in Canada

Facility Name	Location	Year Opened (approx.)	Year Closed/ Changes to Technology (approx.)
TCR Environmental	Aylmer, Ontario	1991	1999
Conporec Integrated Waste Management & Composting	Sorel-Tracy, Quebec	1992	Status unknown; likely closed
City of Guelph Wet/Dry Recycling & Processing	Guelph, Ontario	1995	2001; re-engineered to meet new needs
Otter Lake Waste Facility	Halifax, Nova Scotia	1996	Operating; assessment to close is being reviewed
City of Moncton Wet/Dry Recycling & Processing	Moncton, New Brunswick	1999	2016
Super Blue Box Recycling Corp. (SUBBOR)	Guelph, Ontario	2000	2002
City of Edmonton Mixed Waste Processing and Composting	Edmonton, Ontario	2000	2018
City of Edmonton Integrated Processing and Transfer Facility	Edmonton, Ontario	2000	2018; re-engineered to improve feedstock quality to Enerkem
Enerkem Biofuels and Chemicals	Edmonton, Ontario	2014	Operating

Facility Name	Location	Year Opened (approx.)	Year Closed/ Changes to Technology (approx.)
Dongara Pellet Plant	Vaughan, Ontario	2008	2013; sold in 2016
Plasco Energy Group	Ottawa, Ontario	2008	2015
CFL/GFL High Diversion Material Recovery Facility (former Dongara Pellet Plant)	Vaughan, Ontario	2016	Status unknown; likely being re-engineered
Sustane Technologies	Chester, Nova Scotia	2019	Operating

United States Experience

[Note: Information contained in this section and the next section includes contributions from Dr. Paul van der Werf, Senior Consultant, AET Group, in addition to details from City of London staff.]

Starting in the 1980s, mixed waste processing and mixed waste composting have been a small part of organic waste diversion in the United States. Essentially, organic materials and in some cases recyclable materials are removed from mixed solid waste, using mechanical means. First generation plants used shredding during pre-preprocessing although this was often blamed for poor compost quality. Second-generation plants started moving towards using rotary drums and other technological innovations to better separate out organic waste and improve compost quality. [a]

As reported in 2005, there were 16 mixed waste composting plants in the U.S. They appeared to serve a specific niche "servicing rural areas and/or tourist destinations where the existing landfills have limited capacity and siting a new landfill isn't environmentally or economically feasible." [a] At that time there were about nine source separated composting programs and facilities and facilities servicing them. [b]

By 2007, this had declined to 13 mixed waste composting plants, as some of these plants started receiving source separated organics for composting, while there were 42 source separated composting programs and facilities and facilities servicing them. [c d]

By 2011 this had declined to 11 mixed waste composting plants, with one of them transitioning to the product of refuse derived fuel (RDF) (i.e., fuel for combustion and energy recovery). For each of the municipalities that used this approach it helped solve a unique challenge(s) and processing a single stream made the most sense economically and logistically. [e]

Table B-2 depicts the 11 mixed waste composting facilities that were open in 2011 and current status, where available. A little more than one-half continue to operate in one way or another.

The number of mixed waste composting facilities has remained steady and as of 2017 there continued to be 11[f] but by 2019 there were only six. [g] By early 2012 there were 150 source separated organics programs and facilities servicing them [h] and this has increased to 185 full-scale food waste composting facilities by 2019.[i]

The initial interest in mixed waste composting in the 1980s and 1990s has, over time, contracted, while source separated composting has grown exponentially. By 2019, 18% of the 4,713 US compost facilities accepted source separated organics and other organic feedstocks (approximately 850) while mixed waste composting accounted for 0.2% (6-10).[g]

Table B-2: Mixed Waste Composting Facilities Open in 2011 and Current Status

Facility Name	Location	Estimated Capacity (tonnes/year) (as reported in 2011)	Current Status Year Closed/ Changes to Operations (approximate)
Z-Best Compost Facility	New Gilroy, California	100,000	Open
Mariposa County Landfill, Compost Facility and Recycling Center	Mariposa County, California	-	Unknown
Marlborough Composting Facility	Marlborough, Massachusetts	40,000	Appears to be Closed
Nantucket Landfill, MRF and MSW Composting Facility	Nantucket, Massachusetts	-	Open
Prairieland Compost Facility	Truman, Minnesota	-	Appears to be Closed
West Yellowstone Composting facility	West Yellowstone, Montana	-	Closed 2015 and replaced with source separated facility
Delaware County Composting Facility	Delaware County, New York	23,000	Open
Medina County Solid Waste District Waste Management Facility	Medina, Ohio	140,000	Closed. New smaller mixed waste composting facility opened in 2020
Rapid City solid waste composting facility	Rapid City, South Dakota	45,000	Open (as of 2018)
Sevier County's MSW composting facility	Sevierville, Tennessee	69,000	Open
Columbia County Recycling and Waste Processing Facility	Columbia County, Washington	14,000	Unknown

The key reason for the growth of source separated organics program and lack of growth and contracting of mixed waste composting generally relates directly to final compost quality. Using source separation to keep contaminants out of the composting or anaerobic digestion streams results in cleaner end products. Even though mixed waste composting and processing technologies have vastly improved over time, their end products (particularly compost) continue to be of lower quality compared to facilities processing source separated organics. It would be difficult for these products to meet Ontario's strict contamination requirements.

Finally, some US mixed waste processing facilities are producing solid recovered fuel for use in the cement industry, other large consumers of coal, for the direct replacement of other fossil fuel sources and the production of renewable natural gas (RNG). Three facilities are identified below noting that one facility is currently closed and one re-opened in 2018 after being closed:

- The first fully operational mixed waste HEBioT™ facility, operated by Entsorga West Virginia, is located in Martinsburg, West Virginia (about 150 kilometres west of Baltimore, Maryland). It opened in 2019 at a cost of about $45 million ($33 million US). It is designed to process 100,000 tonnes of mixed waste and produce

approximately 40,000 tonnes of high-calorific value SRF for the cement industry. Organics are left in the waste stream that is used as feedstock to create SRF where they are essentially stabilized (pre-treatment) through aeration channels, moisture is removed and the stabilized stream is processed with other materials to create SRF. Other materials include recyclables extracted from the mixed waste.

- Coastal Resources of Maine (CRM) opened a $120 million ($90 million US) MBT facility in Hampden, Maine using Fiberight's proprietary suite of technologies. The facility opened n in 2019 and is designed to handle 135,000 tonnes per year. The facility closed in May 2020 for a variety of technical, financial and end-market challenges. The goal was to recover recyclables, create a number of value-added resources (e.g., pulp moulded products), electricity, renewable natural gas and bio-fuels. CRM is in negotiation with a potential new facility operator, Delta Thermo Energy, and hopes to reopen in 2021.

- Phase one of a $50 million ($37 million US) mixed waste processing facility called Infinitus Renewable Energy Park (IREP), was opened in the City of Montgomery, Alabama in May 2014. The ultimate design was for 200,000 tonnes per year and future phase would include investment for SRF. Due to end market and financial challenges, it closed in October 2015. The City purchased the assets and re-opened the facility in late 2018 with a new operator, RePower South. An additional $16 million $12 million (US) was invested in the facility. The facility is currently open.

European Experience

The European Union (EU) Landfill Directive [j] compelled member states to reduce the amount of biodegradable wastes going to landfill to no more than 35%, by 2016-2020 (there is some variation between countries), than what was disposed in 1995.

To assist in this process most EU member states have imposed some sort of landfill tax ($3 to $120 US, in 2019[k]) to incent alternatives to landfill disposal.

An important solution used to achieve the above noted target has been mechanical biological treatment (MBT), where inbound municipal solid waste (MSW) is collected and received at a facility, where it is pre-processed, using various mechanical and in some cases optical sorting equipment to separate out biodegradable waste, recyclables, a fuel product and remaining waste. The biodegradable waste is subject to further biological treatment (e.g., composting or anaerobic digestion). The remaining waste may be landfilled although there has been a clear focus on preparing this waste as refuse derived fuel (RDF, a cleaning product for direct combustion or further processing) or as solid waste recovered fuel (SRF, and engineered fuel product).

As of 2017, Europe has about 570 active MBT facilities, with an annual capacity of approximately 50 million tonnes.[k] The number of facilities continue to increase in Europe. From 2012 to 2017 about 25 new MBT facilities were constructed and about 2 million tonnes/year of new capacity came online.[k] Further, it was estimated that from 2017-2025 another 120 facilities will be constructed and commissioned, and provide an additional 10 million tonnes of capacity. [l m]

There are concerns about the compost or compost-like products produced from MBT, primarily that it remains too contaminated with heavy metals and non-biodegradable contaminants such as plastic, metal and glass. [n] There has been a push for source separation of organic waste to facilitate the production of compost, which can be gainfully used as a soil amendment.

At the same time, additional work on pre-sorting organics from the incoming stream continues and technology suppliers are highlighting advancements with proprietary technology components.

A recent blog posting by the Swedish Environmental Protection Agency (Figure 1) further confirms more analysis is required on the future direction of MBT facilities in Europe.

Figure 1: Swedish Environmental Protection Agency Mechanical Biological Treatment Plant Experience Blog Posting

NATUR VÅRDS VERKET SWEDISH ENVIRONMENTAL PROTECTION AGENCY

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Swedish Experience of Mechanical Biological Treatment Plants (MBT plants)

In the 80's Sweden made investments in MBT plants that were eventually shut down in favor of waste separation at source.

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In the 1970s, almost 60 percent of the household waste in Sweden was deposited on landfills, which is a big contrast compared to the current situation where only about 0.7 percent of the household waste goes to landfills. In this journey of shifting waste flows from landfills to material, energy and biological recycling, Sweden has tested various technologies and systems in order to fulfil the waste management hierarchy. One of the first steps taken in Sweden to increase material and biological recycling was to establish mechanical and biological treatment (MBT) plants in the early 1980s. However, it was soon realized that such plants did not create enough added value during the treatment of waste and therefore all the MBT plants in Sweden were eventually shut down.

What is s Mechanical Biological Treatment plant?

An MBT plant, also known as a material recovery facility (MRF), utilizes mechanical sorting in order to separate and recover the different materials present in mixed waste such as metals and combustible materials, and includes further processing of biological material to produce compost for use in the agricultural sector. The major output fractions are recovered metals, refuse derived fuel (RDF) made up of the combustible material in waste, and compost.

The estimated investment cost of an MBT plant was around SEK 100 million in the 1980s. During that period, the Swedish Environmental Protection Agency (EPA) provided grants of between 25-50 percent in order to cover the initial investment of the plant.

From mechanical sorting to source separation

The reasons for the closure of MBT plants in Sweden could be classified into two categories: operational issues and poor product quality. Realizing the problems with MBT plants, the Swedish municipalities started to shift focus to source separation of waste in the 1990s. Over time municipalities gradually invested in source separation of household waste. During the same time Extended Producer Responsibility was introduced for several product groups where source separation and household participation became key components to the EPR infrastructure.

Last updated: 18 September 2020 Content editor: Nina Avdagic Lam

Environmental objective

› A Good Built Environment

WASTE

‹ All pages within the area

Extended Producers Responsibility

Swedish waste management

Municipal waste management

Swedish Experience of Mechanical Biological Treatment Plants

As reported by the European Composting Network, the EU Fertilising Product Regulation COMM (2016) 157, came into force in July 2019. It defines input materials as source separated biowaste but no MBT or biosolids material are allowed.[o p]

European MBT facilities appear to work well at reducing the amount of waste sent to landfill for disposal. In particular, they appear to be able to produce SRF and RDF which can be directed to combustion. For the most part, they currently do not appear able to produce a compost product that can be gainfully applied as a soil amendment. There are some that do meet compost and land application requirements and research and application continues.

With superior pre-processing of MSW, the compost and compost-like produced from MBT may be able to meet Ontario's maximum allowable metal concentration for A or possibly AA compost, the ability to meet the very stringent foreign matter requirements will be much more challenging. This area require much more research in Ontario, Canada and the United States to demonstrate standards can be met and/or create approved applications where compost of a lesser quality can be used.

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[n] MBT is not Organic Recycling, Dutch Waste Management Association, June 2017 https://www.wastematters.eu/news/mbt-is-not-organic-recycling

[o] European Bio-Waste Management and the new EU Fertilising Product Regulation, European Compost Network, June 4, 2019 https://www.compostnetwork.info/wordpress/wp-content/uploads/190604_ECN_European-Biowaste-Management-and-the-new-EU-Fertilising-Product-Regulation.pdf

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Appendix C
Current Experience in Ontario

Through the Regional Public Works Commissioners of Ontario (RPWCO) Waste Subcommittee, mixed waste processing and advanced resource recovery initiatives are shared quarterly among the 20 member municipalities. The most active municipalities are Region of Durham, Region of Peel, City of Toronto and the City of London (details provided in section 2.3). Several other member municipalities are tracking and reporting details as requested (e.g., Region of Niagara, Region of York) and a number have direct experience with these technologies operating in their municipality (e.g., City of Ottawa) or consideration of these technologies (e.g., City of Hamilton, Region of Waterloo). Further details are provided below for Durham, Peel and Toronto are below:

Municipality	Status

Region of Durham	• In June 2019, Council approved to proceed with construction of a mixed-waste transfer and pre-sort facility and an anaerobic digester (AD. The facility would process the remaining waste. The Blue Box Program and Green Bin Program would continue to operate.
	• The pre-sort facility would accept all residential residual garbage (about 160,000 tonnes per year) and separate out any organic and recyclables.
	• The recyclables would be sent to market, while the organics would be processed at the AD facility, along with Green Bin organics, and converted into energy and fertilizer (facility sized for about 110,000 tonnes per year).
	• The AD facility is anticipated to divert approximately 30,000 tonnes of organics annually from the pre-sort facility and an additional 30,000 tonnes would come from the source separated organics program making the initial volume being processed at treated approximately 60,000 tonnes per year.
	• The remaining residue garbage would be sent to the Durham York Energy Centre (DYEC, an energy-from-waste facility).
	• The upfront capital costs to build both facilities were estimated (2019) to be approximately $164 million, including land ($42.3 million for the Pre-sort facility; $116.3 million for the AD facility; $4.8 million for land).
	• The estimated operating and maintenance costs for both facilities during the first year of operations would be $19.3 million.
	• Costs could increase by an additional $15 million to $26 million per year for debenture financing costs to finance the initial capital investment. The estimated debt financing costs would be $20.5 million.
	• Durham Region issued a Request for Pre-Qualifications for a Mixed Waste Presort and Wet Anaerobic Digestion Organics Processing Facility on August 20, 2020 and closed on December 1, 2020 (RFP 1062-2020):
	  • 50 downloads of the document (plan takers) including at least 20 technology providers
	  • 4 responses submitted:
	  • Alberici Constructors, Ltd.
	  • Maple Reinders Constructors Ltd.
	  • Peel West Organics Solutions
	  • Sacyr Environment USA LLC
	• No further details available at this time.

Municipality	Status
Region of Peel	• In 2018, the Region of Peel completed a Mixed Waste Processing Feasibility Study that estimated the cost of a 250,000 tonnes per year facility at $250 million (excluding land). The estimated operating cost was $190 per tonne excluding the revenues from the sale of recyclables, renewable natural gas or low-carbon fuel. • Region of Peel Council directed staff as follows on June 18, 2020: Resolution Number 2020-474 *That staff be directed to report back to a future Waste Management Strategic Advisory Committee meeting with further information related to a mixed waste pilot for multi-residential garbage, including information on how a pilot fits into the Region of Peel's long-term waste management strategy, including timing, scope, costs, risks, outcomes, and options for procurement.* • Peel Region issued a Request for Information and Expression of Interest for a Pilot Project for a Mixed Waste Processing Facility on December 24, 2020 and closed on February 8, 2021. • 40 downloads of the document (plan takers) including at least 15 technology providers • 11 responses submitted: • 2124946 Ontario Ltd. • 3Wayste North America • AET Group Inc. • Anaergia Inc. • Bio-En Power Inc. • Bradam Canada Inc • CCI Bioenergy Inc. • EPCOR Utilities Inc. • GFL Environmental Inc. • Miller Waste Systems Inc. • Sacyr Canada Inc. • No further details available at this time.
City of Toronto	Over the years, the City of Toronto has looked at a wide variety of mixed waste processing and advanced resource recovery technologies. In February 2020, Toronto staff provided an update report to Committee and Council that indicated that the $310 million initially anticipated as the cost for a mixed waste facility in the City's Long Term Waste Management Strategy is sufficient for a facility with a capacity of 270,000 tonnes per year. This assessment was derived from a rough order-of-magnitude costing exercise for a facility that includes a front-end sorting component for separation and capture of recycling and organic fractions, followed by organics contaminant removal and an anaerobic digester to process the organic fraction. The operating cost was estimated at $16.9 million per year or about $63 per tonne. This does not include revenues from the sale of materials or renewable natural gas (RNG). These costing estimates were derived using industry-standard costs. Further analysis will be necessary to determine specific technology costs and to refine the estimate for effective planning. City Council on September 30, October 1 and 2, 2020, adopted the following: *1. City Council direct the General Manager, Solid Waste Management Services to consider future work on the development of a mixed waste processing facility, with or without a thermal treatment process, where*

Municipality	Status
	the overarching goals are maximizing resource recovery through reduce, reuse, recycle, energy recovery then residual disposal, minimizing the dependence on long term landfill use all while ensuring the financial sustainability of the Solid Waste Management Services program. *2. City Council direct the General Manager, Solid Waste Management Services to report back to the Infrastructure and Environment Committee no later than the end of 2023 with a business case, including a triple bottom line analysis (environment, social and financial) and a utility rate impact assessment on the mixed waste processing of waste with and without thermal processing compared to increased reduction and diversion and traditional landfilling.* *3. City Council direct the General Manager, Solid Waste Management Services to pursue potentially applicable Federal Government, Provincial Government, and non-profit organization funding opportunities to assist in implementing Parts 1 and 2 above and to negotiate and enter into all necessary agreements to receive any available funding in a form satisfactory to the City Solicitor.*

Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Kelly Scherr, P. Eng., MBA, FEC, Managing Director, Environmental and Engineering Services and City Engineer**
Subject: **2021 New Traffic and Pedestrian Signals and Pedestrian Crossovers**
Date: **April 20, 2021**

Recommendation

That on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer, the following actions **BE TAKEN** with respect to the planned signal and pedestrian crossover installations:

(a) The installation of the following traffic signals **BE APPROVED**:

i. Edgevalley Road at Highbury Avenue North;

ii. Gainsborough Road at Coronation Drive (west intersection);

iii. Huron Street at Vesta Road;

iv. North Routledge Park at Hyde Park Road; and,

v. Sunningdale Road East at North Wenige Drive.

(b) The installation of the following pedestrian signals **BE APPROVED**:

i. Commissioners Road West at West Springbank Park Entrance; and,

ii. Springbank Drive at Quinella Drive

(c) The attached proposed by-law (Appendix A) **BE INTRODUCED** at the Municipal Council meeting to be held on May 4, 2021, for the purpose of amending the Traffic and Parking By-law (PS-113) related to the new pedestrian crossovers planned to be installed in 2021.

Linkage to the Corporate Strategic Plan

The following report supports the Strategic Plan through the strategic focus area of “Building a Sustainable City”. Traffic, pedestrian and cyclists signals along with pedestrian crossovers enable Londoners to move around the city safely and easily in a manner that meets their needs by improving safety for all modes of transportation.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- Civic Works Committee – April 15, 2016 – Pedestrian Crossover Program; and
- Civic Works Committee – May 19, 2019 – Traffic Signal Warrant Process.

2.0 Discussion and Considerations

2.1 Traffic Signal Assessment

Traffic signals are designed to ensure a safe and orderly flow of traffic, provide safety for pedestrians, bicyclists and/or motor vehicle drivers when crossing a busy intersection. Traffic signals also mitigate the severity and frequency of collisions with vehicles entering intersections from different directions; however, the frequency of the less severe rear-end collisions may increase with the installation of a traffic signal. Traffic signals can be detrimental to the operational efficiency of a roadway system, leading to driver frustration and increased vehicle emissions; it is therefore important to ensure they are only used at appropriate locations consistent with warrant justification.

The Ontario Traffic Manual (OTM) specifies a warrant process that is followed in London and it is consistent with the warrant process used across North America, which assists with creating consistent driver expectation. The process takes into consideration:

- The volume of traffic/pedestrians using the intersection;
- The delay experienced by side street traffic/pedestrians; and,
- The collision history of the intersection.

A warrant-based approach is important as unneeded signalized intersections can be detrimental to the operational efficiency of the roadway network. Adherence to consistent warrants also helps foster consistent driver expectations and minimizes liability for municipalities.

2.1.1 Near Term Traffic Signals

2.1.1.1 Edgevalley Road at Highbury Avenue North

Traffic volumes on Edgevalley Road have grown with the development of the lands east of Highbury Avenue North. The signalization of this intersection is recommended to address this growth in vehicular and pedestrian traffic.

2.1.1.2 Gainsborough Road at Coronation Drive (west intersection)

Traffic growth on Gainsborough Road and Coronation Drive has increased with development in the area. Additional development south of Gainsborough Road is planned. The intersection satisfies the combined volume and delay warrant for signalization.

2.1.1.3 Huron Street at Vesta Road

An intersection pedestrian signal was installed on Huron Street immediately east of Vesta Road in 2010 to provide a controlled pedestrian crossing. The volume of traffic using Huron Street has increased and signalization is recommended based on the delay warrant.

2.1.1.4 North Routledge Park at Hyde Park Road

New developments on both sides of Hyde Park Road have resulted in additional vehicle and pedestrian traffic accessing the road at the north crossing of North Routledge Park / Coronation Drive. It is recommended to install a traffic signal at this location to address this additional growth in traffic.

2.1.1.5 Sunningdale Road East at North Wenige Drive

Traffic growth on Sunningdale Road East and North Wenige Drive has increased with development in the area. The intersection satisfies the combined volume and delay warrant for signalization.

Appendix A includes a list of intersections where a traffic signal is being considered.

2.2 Pedestrian and Cyclist Signal Assessment

Pedestrian signals are implemented based on pedestrian crossing volumes, pedestrian demand in the area and delay experienced by pedestrians. In 2019, Municipal Council approved a new warrant for pedestrian signals that bridges the gap between pedestrian signal and pedestrian crossovers.

In 2020, London's first pedestrian/cyclist signal was installed on Riverside Drive at Wilson Avenue. Another is planned for Oxford Street at William Street in 2021. The inclusion of cyclist signals improves connections within the cycling network.

Appendix A contains locations where the need for signals is currently being studied.

2.2.1 Near Term Pedestrian Signals

2.2.1.1 Commissioners Road West at West Springbank Park Entrance

New additional high rise residential construction is nearing completion on the south side of Commissioners Road West across from Springbank Park. A pedestrian signal is recommended at the west entrance to the park to allow pedestrians to access the park and the bus stop on the north side of the road.

2.2.1.2 Springbank Drive at Quinella Drive

During the eight-hour study period, 89 pedestrians were observed crossing Springbank Drive in the vicinity of Quinella Drive. Fifty-nine (59) percent of those pedestrian were seniors. A pedestrian signal is recommended to provide access to bus stops, Springbank Park and the Civic Gardens Centre Complex. A sidewalk on the south side of Springbank Drive will allow pedestrians west of Quinella Drive to access the new pedestrian signal.

Studies scheduled for later this year may identify new pedestrian signal locations.

2.3 Pedestrian Crossover Assessment

The OTM contains three types of pedestrian crossovers (PXOs). All PXOs have pavement markings and signage. To distinguish the different types

- PXO Type D has boulevard signs;
- PXO Type C has boulevard signs and pedestrian activated flashers;
- PXO Type B has boulevard and overhead signs with pedestrian activated flashers.

The warrant process for a PXO considers the volume of pedestrians and the desire lines of pedestrians. The OTM provides additional guidance for the selection of the appropriate PXO type based on traffic volumes and the posted speed limit of the road.

2.3.1 Near-term Pedestrian Crossovers

The following tables list PXOs recommended for construction in 2021:

Type B PXOs

Street Name	Location
Gainsborough Road	At a point 230 m west of Prince of Wales Gate (former railway crossing connecting the pathways)
Huron Street	At a point 174 m west of Briarhill Avenue
Platt's Lane	North side of the intersection with Cherryhill Place
Talbot Street	South side of the intersection with Kent Street
Wavell Street	At a point 20 m west of Kiwanis Park Drive
Wavell Street	East side of the intersection with Merlin Crescent

Type C PXOs

Street Name	Location
Waterloo Street	At a point 143 m south of Epworth Avenue connecting paths

Type D PXOs

Street Name	Location
Campbell Street North	North side of intersection with James Street
Chelton Road	South side of the intersection with Cardigan Drive
Coombs Avenue	South side of the intersection with Ford Crescent
Dalmagarry Road	Coronation Drive (roundabout)
Dalmagarry Road	South of Fanshawe Pk Road West at walkway
Forward Avenue	West side of the intersection with Wood Street
Hillside Drive	East side of the intersection with Taplow Road
Iroquois Avenue	West side of the intersection with Murray Road
Limberlost Road	North side of the intersection with Fairfax Court
Oakcrossing Road	South side of the intersection with Whetherfield Street
Shavian Blvd	South side of the intersection with McStay Road
Sorrel Road	At a point 61 m south of Perth Avenue
South Wenige Drive	South side of the intersection with Father Daulton Avenue
Topping Lane	South side of the intersection with Eaton Park Drive
Viscount Road	At a point 59 m east of Monte Vista Cres connecting park paths

2.4 Previously Approved Traffic Control Devices

The following traffic control devices were previously approved and scheduled to be constructed in 2021:

Street	Location	Traffic Control Type
Pack Road	Colonel Talbot Road	Traffic Signal
Wilton Grove Road	Commerce Road	Traffic Signal
Hamilton Road	Inkerman Street	Pedestrian Signal
Hamilton Road	Pine Lane Avenue	Pedestrian Signal
Southdale Road East	Millbank Drive (west leg)	Pedestrian Signal
Oxford Street East	William Street	Pedestrian and Cyclist Signal
Baseline Road West	West Street	Type D PXO
Churchill Avenue	Calgary Street	Type D PXO
Dundas Street	At a point 122 m east of Adelaide Street North	Type C PXO
Valetta Street	Adevon Avenue	Type D PXO

3.0 Financial Impact/Considerations

3.1 Operating Budget

The annual cost starting in 2022, to maintain the recommended new traffic and pedestrian signals is $70,000 including electricity consumption.

The annual cost to maintain the recommended new PXOs is $12,000 starting in 2022.

3.1 Capital Budget

The estimated cost to construct the five recommended traffic signals and two pedestrian signals is $1,855,000. There are sufficient funds available in the approved Growth Capital budget for these new signals.

The estimated cost to install the recommended PXOs is $350,000. There is no dedicated budget for pedestrian crossovers; however, the installation of the recommended PXOs can be accommodated within the approved Capital budget.

Conclusion

The traffic and pedestrian signals and pedestrian crossovers described herein, are recommended to create a more accessible and safe transportation system. Traffic control assessment balances the needs of all road users and optimizes safety. Signals are design to accommodate all users and in accordance with AODA requirements. The warrant approach used is standardized across Ontario and fosters consistent road user expectation and manages municipal liability.

If approved, construction of the traffic signals will occur in 2022 and the pedestrian signals in 2021. The installation of the pedestrian crossovers is scheduled for 2021.

Prepared by:	**Shane Maguire, P. Eng., Division Manager, Roadway Lighting and Traffic Control**
Submitted by:	**Doug MacRae, P. Eng., MPA, Director, Roads and Transportation**
Recommended by:	**Kelly Scherr, P. Eng., MBA, FEC, Managing Director, Environmental and Engineering Services and City Engineer**

April 12, 2021/

Attach: Appendix A: By-law to amend the Traffic and Parking By-law (PS-113)
Appendix B: Future Traffic Signal Monitoring

APPENDIX A: By-law to amend the Traffic and Parking By-law (PS-113)

Bill No.

By-law No. PS-113

A by-law to amend By-law PS-113 entitled, “A by-law to regulate traffic and the parking of motor vehicles in the City of London.”

WHEREAS subsection 10(2) paragraph 7. Of the *Municipal Act, 2001*, S.O. 2001, c.25, as amended, provides that a municipality may pass by-laws to provide any service or thing that the municipality considers necessary or desirable to the public;

AND WHEREAS subsection 5(3) of the *Municipal Act*, 2001, as amended, provides that a municipal power shall be exercised by by-law;

NOW THEREFORE the Municipal Council of The Corporation of the City of London enacts as follows:

1. **Pedestrian Crossovers**

Schedule 13.1 of By-law PS-113 is hereby amended by **adding** the following rows:

Street Name	Location
Campbell Street North	North side of the intersection with James Street
Chelton Road	South side of the intersection with Cardigan Drive
Coombs Avenue	South side of the intersection with Ford Crescent
Coronation Drive	West side of the intersection with Dalmagarry Road
Coronation Drive	East side of the intersection with Dalmagarry Road
Dalmagarry Road	North side of intersection with Coronation Drive
Dalmagarry Road	South of Fanshawe Park Road West at walkway
Forward Avenue	West side of the intersection with Wood Street
Hillside Drive	East side of the intersection with Taplow Road
Iroquois Avenue	West side of the intersection with Murray Road
Limberlost Road	North side of the intersection with Fairfax Court
Oakcrossing Road	South side of the intersection with Whetherfield Street
Shavian Boulevard	South side of the intersection with McStay Road
Sorrel Road	At a point 61 m south of Perth Avenue
South Wenige Drive	South side of the intersection with Father Daulton Avenue
Topping Lane	South side of the intersection with Eaton Park Drive
Viscount Road	At a point 59 m east of Monte Vista Cres connecting park paths

This by-law comes into force and effect on the day it is passed.

PASSED in Open Council on May 4, 2021

Ed Holder

Mayor

Catharine Saunders

City Clerk

First Reading – May 4, 2021
Second Reading – May 4, 2021
Third Reading – May 4, 2021

APPENDIX B: Future Traffic Signal Monitoring

East-West Street	North-South Street	Minimum Volume Warrant (1)	Delay Warrant (1)	Comment
Commissioners Road East	Chelton Road	53%	95%	Construction is planned for 2023(2).
Fanshawe Park Road East	Stackhouse Avenue	45%	68%	Continue to monitor as development north of Fanshawe Park Road East increases.
Gainsborough Road	Sherwood Forest Mall	88%	100%	Currently an intersection pedestrian signal. Construction is planned for 2023(2).
Hamilton Road	Clarke Road	79%	79%	Design is complete. Construction is planned for 2023(2).
Sunningdale Road East	Clarke Road	81%	56%	Continue to monitor as development in the area increases. Construction is tentatively planned for 2023(2).

Notes:

(1) Warrants should be met for justification and infrastructure consistency. For traffic signals the warrant considers volume and delay. Warrant is met when
   a. Either the volume or delay warrant measures 100%, or
   b. Both the volume and delay warrants measure at least 80%.

(2) Construction dates are tentative and are dependent on sufficient Capital budget funds.

Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Kelly Scherr, P.Eng., MBA, FEC**
Managing Director, Environmental & Engineering Services and City Engineer
Subject: **Greenway Wastewater Treatment Plant UV Disinfection Equipment Single Source**
Date: **April 20, 2021**

Recommendation

That, on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer, the following actions **BE TAKEN** with respect to upgrades to the UV disinfection system at Greenway Wastewater Treatment Plant:

a) the contract for purchase of a UV disinfection system **BE AWARDED** to Trojan Technologies as a single source procurement for a total value of $1,154,700.00 plus HST in accordance with Sections 14.4 (d) and (e) of the City of London's Procurement of Goods and Services Policy;

b) AECOM **BE APPOINTED** Consulting Engineers in the amount of $206,639.40, including 10% contingency, excluding HST, in accordance with 15.1 (b) and 15.2 (g) of the City of London's Procurement of Goods and Services Policy;

c) the financing for the project **BE APPROVED** in accordance with the "Sources of Financing Report" attached hereto as Appendix 'A';

d) the Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this project;

e) the approvals given herein **BE CONDITIONAL** upon the Corporation entering into a formal contract; and

f) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

Executive Summary

Purpose

This report recommends approving the purchase of new ultraviolet water (UV) treatment equipment for Greenway Wastewater Treatment Plant from Trojan Technologies and awarding a contract for consulting engineering services to AECOM to design and administer the contract.

Context

The Greenway Wastewater Treatment Plant employs ultraviolet disinfection to disinfect treated wastewater prior to discharge to the Thames River. The current system is at its end of life and requires replacement. Trojan Technologies and the City have historically enjoyed a mutually beneficial arrangement for supply and maintenance of UV equipment, and the new technology proposed by Trojan will significantly reduce power consumption and maintenance costs at Greenway. AECOM recently completed a feasibility study for this upgrade, in addition to experience gained in other assignments at Greenway, and is uniquely qualified to continue this assignment. In both cases the approval for single source procurement is requested and recommended.

Linkage to the Corporate Strategic Plan

This project supports the 2019-2023 Strategic Plan through:

- Growing our Economy: increase partnerships that promote collaboration, innovation, and investment;
- Building a Sustainable City: build infrastructure to support future development and protect the environment; and, manage the infrastructure gap for all assets.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

Agreement Extension with Trojan Technologies for the use of the decommissioned Westminster Wastewater Treatment Plant. Civic Works Committee. September 24, 2019.

1.2 Context

Greenway Wastewater Treatment Plant is the City's largest plant, treating 60% of the City's wastewater. In 2020 it reliably treated an average of almost 120 million litres per day of wastewater. An important part of the treatment process is disinfection of the treated wastewater prior to discharging to the Thames River.

The City of London began transitioning to ultraviolet (UV) treatment as its preferred method for disinfecting water before it leaves the plant in the 1990s. This technology replaced chlorination, which fell out of favour due to contamination of the environment through residual chlorine in the effluent as well as concerns over the safe handling of liquid or gaseous chlorine. Trojan Technologies was an early market leader in this field. As a result, all City treatment plants currently employ Trojan Technologies equipment for disinfection.

Since Greenway treats such a large amount of flow, the ultraviolet system is large and consumes high amounts of electricity. The current ultraviolet system at Greenway, also supplied by Trojan Technologies, is over 22 years old and is at the end of its expected life. Ultraviolet disinfection technology has advanced significantly in terms of control and efficiency, so the replacement of this equipment represents both a significant investment and an important opportunity to reduce power consumption.

2.0 Discussion and Considerations

2.1 Design and Coordination with other Projects

The City was recently awarded funding under the Disaster Mitigation and Adaptation Fund to construct flood protection at the Greenway and Adelaide Wastewater Treatment Plants. Flood protection includes the construction of a physical barrier, to protect the plant from rising river levels, and an effluent pumping station to eliminate the potential for river water to back up into the plant interrupting the treatment process.

As the flood protection infrastructure will be located in the same general area as the current ultraviolet disinfection process, AECOM was retained to complete a feasibility study to ensure that a new ultraviolet system would complement the upcoming flood protection work. In order to construct the new works and be in a position to commission prior to April 1, 2022, staff are requesting approval to forego the competitive process and issue a purchase order directly to Trojan Technologies for the purchase of the ultraviolet equipment and to award AECOM the detailed design and contract administration services.

2.2 Selection of Trojan Technologies as a Single Source Supplier

The procurement policy includes a provision to allow a project to be single sourced to a specific supplier under a predefined set of criteria. Trojan Technologies has been recommended as a single source supplier for the reasons noted in sections 14.4 d) and 14.4 e) of the Procurement of Goods and Services Policy:

- 14.4 d. There is a need for compatibility with goods and/or services previously acquired or the required goods and/or services will be additional to similar goods and/or services being supplied under an existing contract (i.e. contract extension or renewal);

- 14.4 e. The required goods and/or services are to be supplied by a particular supplier(s) having special knowledge, skills, expertise or experience;

Trojan is a London-based world leader in ultraviolet disinfection technology for the water and wastewater industries. At the time that the City was converting its disinfection processes to ultraviolet technology, Trojan was the clear leader in North America. As a result, all City facilities employ various models of Trojan Technologies equipment. As it relates to clause 14.4 d., a common provider of UV treatment products ensures consistent product support, a shared inventory of spare parts, coordination of service, and consistency of staff training requirements. Maintaining Trojan as London's UV equipment supplier will help maintain this system wide consistency and efficiency.

With respect to clause 14.4 e., The ultraviolet system proposed for Greenway, the TrojanUVSigna, represents the state of the art of ultraviolet disinfection, providing effective disinfection while significantly decreasing electrical consumption as compared with previous technologies. Trojan's familiarity with the City's system and installations brings significant value to the City and provides further support for the recommendation to approve a single source procurement.

2.3 AECOM as Recommended Consultant

An extension to AECOM's current contract has been recommended in accordance with the following sections of the Procurement of Goods and Services Policy:

- 15.1 b. Under no circumstances shall an extension or expansion of a consulting engagement preclude the required approvals. This includes splitting the project or scope of work into multiple phases or sections. City Council has sole authority to approve and award contracts greater than $100,000.

- 15.2 g. A consulting firm which has satisfactorily partially completed a project may be recommended for award of the balance of a project without competition subject to satisfying all financial, reporting and other conditions contained within this Policy. This should be to the financial advantage of the City due to the fact that such a consultant has specific knowledge of the project and has undertaken work for which duplication would be required if another firm were to be selected.

AECOM completed the feasibility study for the Greenway UV project and has a substantial amount of expertise and experience in this field of wastewater treatment. A suitable conceptual design has been completed by AECOM that will allow for construction of a new disinfection system without significantly impacting existing operations. Assigning this work to an alternative firm would result in duplication and cause significant project schedule delays. It is for these reasons that section 15.2 g. applies. AECOM is uniquely positioned to provide high-value service on this project and meet the tight project timelines. If Committee and Council approves this request, AECOM would commence the design immediately ensuring that the new ultraviolet disinfection system would be installed prior to construction of the flood protection works.

Staff have reviewed AECOM's fee submission, including the time allocated to each project task, along with hourly rates provided by each of the consultant's staff members. The qualifications of assigned personnel, time per project task, and hourly rates were consistent with other assignments of similar complexity and scope. The continued use of AECOM is of financial advantage to the City because the firm has specific knowledge of the project and has undertaken work for which duplication would be required if another firm were to be selected.

2.4 Addressing the Need for Action on Climate Change

On April 23, 2019, Municipal Council declared a climate emergency in the City of London. The ultraviolet disinfection systems used at all City wastewater treatment plants are an environmentally friendly form of wastewater treatment that does not leave residual chemicals in the water returned to the Thames River. Increasing the efficiency of Greenway's UV system through higher efficiency UV bulbs is expected to reduce that consumption by 60% or more, resulting in a reduction of 532,000 kWh of electrical consumption per year. Installation of this system will provide a more cost-effective wastewater treatment system while simultaneously lowering greenhouse gas emissions.

3.0 Financial Impact/Considerations

3.1 Activity Planned and Budget Available

Replacement of the ultraviolet disinfection system at Greenway was anticipated and accounted for under the current approved multi-year capital budget. The proposed prices for both the ultraviolet equipment and engineering services align with previous estimates used to develop that budget. Energy savings projected as a result of the planned upgrade could provide a payback period of 14.4 years considering the purchase price of the ultraviolet disinfection system.

A secondary financial benefit of installing a Trojan UV system at the Greenway Wastewater Treatment Plant is the spare parts discount provided by Trojan for UV systems owned by the City of London. This discount was negotiated as part of the City's agreement with Trojan to use the former Westminster Wastewater Treatment Plant for research purposes.

Conclusion

The ultraviolet disinfection system at Greenway wastewater treatment plant is an essential component of the City's obligations for the protection of human health and the environment. By purchasing the latest technology from Trojan Technologies, the City will be able to construct the new facility prior by April 2022 and will save significant amounts of electricity every year thereafter. AECOM has demonstrated a strong understanding of the project and is in the best position to efficiently deliver detailed design and construction administration services. Administration is therefore recommending single source procurement for both the purchase of ultraviolet disinfection equipment from Trojan Technologies and the award of the related engineering services contract to AECOM.

Prepared by:	**Kirby Oudekerk, P.Eng., Division Manager, Wastewater Treatment Operations**
Submitted by:	**Scott Mathers, MPA, P. Eng., Director, Water And Wastewater**
Recommended by:	**Kelly Scherr, P. Eng., MBA, FEC Managing Director, Environmental and Engineering Services and City Engineer**

cc: John Freeman, Manager III, Purchasing and Supply
Chris Ginty, Procurement Officer, Purchasing and Supply

Alan Dunbar, Manager III, Financial Planning and Policy
Zeina Nsair, Financial Business Administrator, Finance and Corporate Services

Appendix "A"

#21053
April 20, 2021
(Award Contract)

Chair and Members
Civic Works Committee

RE: Greenway Wastewater Treatment Plant UV Disinfection Equipment Single Source
(Subledger FS21GW02)
Capital Project ES3098 - Greenway WWTP Capacity Improvements for Bypass Reduction and Flood Protection
Trojan Technologies - $1,154,700.00 (excluding HST)
AECOM - $206,639.40 (excluding HST)

Finance and Corporate Services Report on the Sources of Financing:

Finance and Corporate Services confirms that the cost of this project can be accommodated within the financing available for it in the Capital Budget and that, subject to the approval of the Managing Director, Environmental and Engineering Services and City Engineer, the detailed source of financing for this project is:

Estimated Expenditures	Approved Budget	Committed To Date	This Submission	Balance for Future Work
Engineering	1,150,000	128,167	210,276	811,557
Construction	8,458,437	781,603	0	7,676,834
Replace Vehicles & Equipment	1,175,023	0	1,175,023	0
City Related Expenses	100,000	8,861	0	91,139
Total Expenditures	$10,883,460	$918,631	$1,385,299	$8,579,530
Sources of Financing				
Drawdown from Sewage Works Reserve Fund	10,883,460	918,631	1,385,299	8,579,530
Total Financing	$10,883,460	$918,631	$1,385,299	$8,579,530

Financial Note:	**Trojan**	**AECOM**	**Total**
Contract Price	$1,154,700	$206,639	$1,361,339
Add: HST @13%	150,111	26,863	176,974
Total Contract Price Including Taxes	1,304,811	233,502	1,538,313
Less: HST Rebate	-129,788	-23,226	-153,014
Net Contract Price	$1,175,023	$210,276	$1,385,299

Jason Davies
Manager of Financial Planning & Policy

jg

Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Kelly Scherr, P.Eng., MBA, FEC**
Managing Director, Environmental & Engineering Services and City Engineer
Subject: **Victoria Street Pumping Station Class Environmental Assessment Notice of Completion**
Date: **April 20, 2021**

Recommendation

That, on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer, the following actions be taken with respect to the Victoria Street Pumping Station Municipal Class Environmental Assessment:

a) The preferred alternative for the replacement of the Victoria Street Pumping Station **BE ACCEPTED**, in accordance with the Schedule 'B' Municipal Class Environmental Assessment process requirements;

b) The Notice of Completion **BE FILED** with the Municipal Clerk; and

c) The Project file for the Victoria Street Pumping Station Class Environmental Assessment **BE PLACED** on public record for a 30-day review period.

Executive Summary

Purpose

This report identifies the preferred alternative for the Victoria Street Pumping Station Schedule 'B' Municipal Class Environmental Assessment (EA), and recommends filing the Notice of Completion to initiate the statutory 30-day public review period of the Project File, in accordance with the Environmental Assessment Act.

Context

The Victoria Street Pumping Station, located at 47 Victoria Street, is reaching the end of its life and requires renewal or replacement. As part of the Class EA various alternative solutions were reviewed and evaluated for this sewage pumping station. The Class EA included public engagement, agency consultation, as well as First Nations engagement. The preferred alternative was identified through the Class EA process as the replacement of the existing pumping station with a new pumping station, to be located at the west end of Victoria Street near the entrance to Gibbons Park.

Linkage to the Corporate Strategic Plan

This report supports the Corporate Strategic Plan in the following areas:

- Building a Sustainable City: Maintain or increase current levels of service; build infrastructure to support future development and protect the environment; and manage the infrastructure gap for all assets; and

- Leading in Public Service: Increase opportunities for residents to be informed and participate in local government; improve public accountability and transparency in decision making.

Analysis

1.0 Background Information

1.1 Context

The Victoria Street Sewage Pumping Station, located at 47 Victoria Street, has reached the end of its life and utilizes obsolete technology that is no longer supported. This station requires renewal or replacement. In the summer of 2021, the City of London appointed MTE Consultants Inc. to complete the Schedule 'B' Municipal Class Environmental Assessment (EA) for the Victoria Street Pumping Station.

An Infrastructure Renewal Program project is planned for Victoria Street from Lombardo Avenue to the west end in 2022. The renewal or replacement of the Victoria Street Sewage Pumping Station would be completed in coordination with this Infrastructure Renewal Program project.

2.0 Discussion and Considerations

2.1 Class Environmental Assessment Process

As part of the Class EA process for the Victoria Street Pumping Station the following alternatives were reviewed and evaluated:

- do nothing;
- replacement/upgrade of pumping station components at the current location;
- relocation of the pumping station; and
- elimination of the pumping station.

Based on the feedback received as part of this Class EA, the public, including several adjacent residents, was supportive of relocating the pumping station. Considering this feedback and technical design and operating constraints, the preferred alternative was identified as the relocation of the pumping station to the west end of Victoria Street, to the west of the entrance to Gibbons Park (as shown in Appendix 'A'). At this new location, the pumping station would have significantly less potential for disruption to residents in terms of odour, noise, and lane closures during City maintenance activities. The new pumping station would be designed with sufficient capacity to minimize the potential for overflows.

As part of this Class EA, a Stage 1 Archaeological Assessment was completed, as well as a natural environment review which included screening of species at risk and a tree inventory and impact assessment. The proposed location for the new pumping station seeks to minimize overall tree impacts, which will be reviewed and confirmed as part of the detailed design assignment under the Infrastructure Renewal Program project.

2.2 Public/Stakeholder Consultation

As part of the Class EA, a recorded Public Information Centre (PIC) presentation video was made available online on November 13, 2020. The presentation video was posted on the Get Involved London web platform to allow for public engagement. Approximately twelve members of the public viewed the presentation video and provided comments through this online format.

Notifications for the PIC were posted online and were also published for two weeks prior to the event in the Londoner. Project notices were also sent to applicable federal, provincial, and municipal stakeholders, and local First Nations.

2.3 Next Steps

The following steps will be taken to finalize the Victoria Street Pumping Station Class EA. Upon Acceptance by Council, the Notice of Completion (Appendix 'B') will be published identifying that the Project File is available for 30-day public review online at:

https://getinvolved.london.ca/victoriastreet

Public/stakeholders are encouraged to provide input and comments regarding the Class EA during the public review period to the City. In addition, should stakeholders feel that issues have not been adequately addressed, they can make a request in writing, within the 30-day review period to the Ministry of the Environment, Conservation and Parks, for an order requiring a higher level of study, or that conditions be imposed. Subject to no written requests being received by the Ministry of the Environment, Conservation and Parks, the Project File will be finalized.

The project may then proceed to design, tendering and construction of the proposed works. Permits and approvals for the proposed works will be obtained at the detailed design stage from the applicable regulatory authorities.

2.4 Schedule and Budget Implications

Consulting engineering services for the Victoria Street (Lombardo Avenue to west end, including the pumping station) Infrastructure Renewal Program project will be awarded in the summer of 2021, with construction planned for 2022.

The capital cost estimate for the preferred alternative for the Victoria Street Pumping Station aligns with the initial budget estimate. The funding for the detailed design, tendering, construction, and commissioning have already been approved as part of the 2019-2023 Water and Wastewater Capital Budget.

Conclusion

The preferred alternative for Victoria Street Pumping Station, identified through the Class EA process, provides an effective technical solution that mitigates impacts to residents and the environment. Staff recommend that the preferred alternative identified through the Class EA be accepted, the Notice of Completion filed, and that the Project File be placed on public record for a 30-day review period.

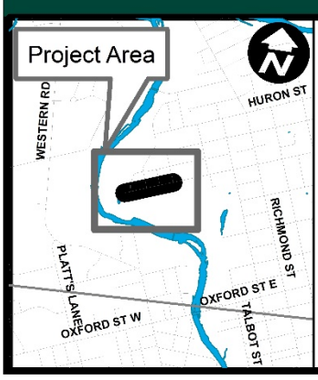
Prepared by:	**Kirby Oudekerk, P.Eng., Division Manager, Wastewater Treatment Operations**
Submitted by:	**Scott Mathers, MPA, P.Eng., Director, Water and Wastewater**
Recommended by:	**Kelly Scherr, P.Eng., MBA, FEC, Managing Director, Environmental and Engineering Services and City Engineer**

cc: Marcy McKillop, P.Eng., Environmental Services Engineer
Dave Wilhelm, P.Eng., MTE Consultants Inc.

Appendix 'A' - Location Map
Appendix 'B' - Notice of Completion

APPENDIX 'A'

LOCATION MAP



Victoria Sewage Pumping Station Class Environmental Assessment

- Extent of 2022 Victoria Street IRP project
- Existing location of pumping station
- Preferred pumping station location

Map Produced by the Sewer Engineering Division

March 23 2021 CM

London CANADA

300 Dufferin Avenue,
PO Box 5035
London, Ontario
N6A 4L9
www.London.ca

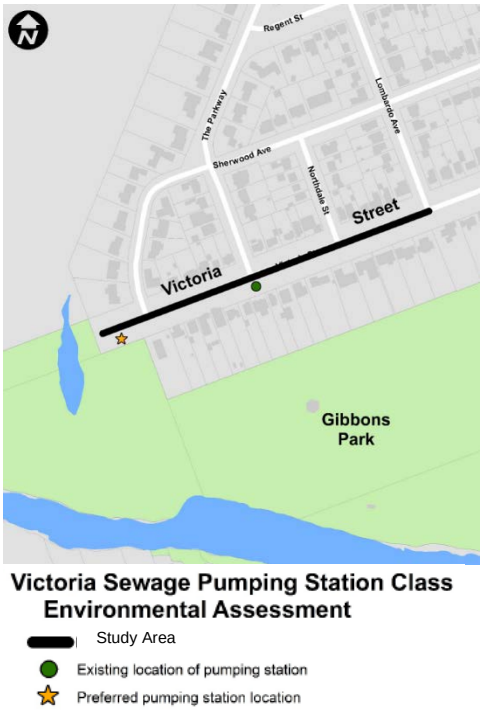
City of London
Notice of Completion

Victoria Street Sewage Pumping Station Class Environmental Assessment

PUBLIC NOTICE **May 2021**

Project

The City of London is concluding the Victoria Street Sewage Pumping Station Class Environmental Assessment (EA). The purpose of this Class EA was to evaluate a range of potential alternatives for the existing Victoria Street Sewage Pumping Station, located at 47 Victoria Street, which is reaching the end of its life and requires renewal or replacement.



Victoria Sewage Pumping Station Class Environmental Assessment

Study Area
Existing location of pumping station
Preferred pumping station location

Process

The Class EA study was undertaken in accordance with the Ontario Environmental Assessment Act and has covered all necessary phases of Schedule 'B' of the Municipal Class EA Process. The Schedule 'B' process includes the definition of a problem or opportunity, as well as the identification and evaluation of potential alternative solutions. At this time, a Project File Report has been completed to conclude the Schedule 'B' Municipal Class EA process to recommend the preferred solution for the Victoria Street Sewage Pumping Station. The Project File Report will be available online for review:
https://getinvolved.london.ca/victoriastreet

Interested persons may provide written comments to our project team by June 8, 2021. All comments and concerns should be sent directly to Brian Calhoun at the City of London.

In addition, a request may be made to the Ministry of the Environment, Conservation and Parks for an order requiring a higher level of study (i.e. requiring an individual/comprehensive EA approval before being able to proceed), or that conditions be imposed (e.g. require further studies), only on the grounds that the requested order may prevent, mitigate or remedy adverse impacts on constitutionally protected Aboriginal and treaty rights. Requests on other grounds will not be considered. Requests should include the requester contact information and full name.

Requests should specify what kind of order is being requested (request for conditions or a request for an individual/comprehensive environmental assessment), how an order may prevent, mitigate or remedy potential adverse impacts on Aboriginal and treaty rights, and any information in support of the statements in the request. This will ensure that the ministry is able to efficiently begin reviewing the request.

The request should be sent in writing or by email to:

Minister of the Environment, Conservation and Parks
Ministry of Environment, Conservation and Parks
777 Bay Street, 5th Floor
Toronto ON M7A 2J3
minister.mecp@ontario.ca

and

Director, Environmental Assessment Branch
Ministry of Environment, Conservation and Parks
135 St. Clair Ave. W, 1st Floor
Toronto ON, M4V 1P5
EABDirector@ontario.ca

Requests should also be copied to the Brian Calhoun by mail or by e-mail. Please visit the ministry's website for more information on requests for orders under section 16 of the Environmental Assessment Act at: https://www.ontario.ca/page/class-environmentalassessments-part-ii-order

All personal information included in your request – such as name, address, telephone number and property location – is collected, under the authority of section 30 of the Environmental Assessment Act and is collected and maintained for the purpose of creating a record that is available to the general public. As this information is collected for the purpose of a public record, the protection of personal information provided in the Freedom of Information and Protection of Privacy Act (FIPPA) does not apply (s.37). Personal information you submit will become part of a public record that is available to the general public unless you request that your personal information remain confidential.

Your feedback is important to us

To provide comments, obtain alternate formats, request additional information, or if you have any issues accessing the document for review, please contact a member of the project team below:

Brian Calhoun A.Sc.T.
Senior Engineering Technologist
Wastewater Treatment Operations
City of London
109 Greenside Avenue
London, ON N6J 2X5

(519) 661-CITY (2489) ext. 1337
bcalhoun@london.ca

Dave Wilhelm, P.Eng.
Manager, Water/Wastewater
MTE Consultants Inc.
520 Bingemans Centre Drive
Kitchener, ON N2B 3X9

(519) 743-6500 ext. 1225
dwilhelm@mte85.com

Under the Freedom of Information and Protection of Privacy Act and the Environmental Assessment Act, unless otherwise stated in the submission, any personal information such as name, address, telephone number and property location included in a submission will become part of the public record files for this matter and may be released, if requested, to any person.

Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Kelly Scherr, P.Eng., MBA, FEC**
Managing Director, Environmental & Engineering Services and City Engineer
Subject: **Supply and Delivery of Traffic Paint SS21-17**
Date: **April 20, 2021**

Recommendation

That, on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer, the following actions **BE TAKEN** with respect to the supply and delivery of traffic paint:

a) Approval hereby **BE GIVEN** to enter a three-year (3) contract for the supply and delivery of traffic paint with Ennis Paint Canada ULC at the quoted price of $123,562.00 per year (excluding HST), it being noted that the pricing was provided through participation in the Elgin/Middlesex/Oxford Purchasing Co-Operative (EMOP) and made in accordance with Section 14.4 g) Single Sourcing of the Procurement of Goods and Services Policy which states: “It is advantageous to the City to acquire the goods or services from a supplier pursuant to the procurement process conducted by another public body”;

b) Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this contract;

c) Approval hereby **BE CONDITIONAL** upon the Corporation negotiating prices, terms and conditions with Ennis Paint Canada ULC to the satisfaction of the Manager of Purchasing and Supply and the Managing Director, Environmental and Engineering Services and City Engineer; and,

d) Approval hereby **BE CONDITIONAL** upon the Corporation entering into a formal contract or having a purchase order relating to the subject matter of this approval.

Linkage to the Corporate Strategic Plan

This report supports the Strategic Plan in the following areas:

- Building a Sustainable City:
    - Infrastructure is built, maintained and operated to meet the long-term needs of our community; and
    - Growth and development are well planned and sustainable over the long term

- Leading in Public Service:
    - Exceptional and valued customer service; and
    - Leader in public service as an employer and a steward of public funds.

Background

The City of London's Road Operations and Forestry Division maintains all pavement line painting and intersection marking on City streets. Paint used in this application is a complex formula, and the City of London uses a clear specification to ensure paint procured for street marking provides the best value and longest possible life. The City has a purpose-built vehicle that performs line painting work from early spring to late fall annually. Purchasing and Supply keeps white and yellow road paint in stock to support the line painting team.

Discussion

1.0 Purchasing Process

A competitive bidding process was conducted by the Elgin Middlesex Oxford Purchasing Cooperative (EMOP) with The County of Middlesex as the calling agency. The supply and delivery of traffic paint has been awarded to Ennis Paint Canada ULC, the lowest compliant bidder. The recommendation to participate in the EMOP solicitation is made in accordance with Section 14.4 g) Single Sourcing of the Procurement of Goods and Services Policy which states: "It is advantageous to the City to acquire the goods or services from a supplier pursuant to the procurement process conducted by another public body".

The Province of Ontario, the City of London and any other public sector members will share the benefits of this agreement, but each entity will separately administer their own procurement contracts. Through the use of the EMOP process, the City saves the administrative costs associated with tendering for this commodity and has access to pricing based on the EMOP Cooperatives combined volume.

2.0 Financial Impact

Funding for this program has been included in operating accounts in the multi-year budget.

The total annual expenditure in 2020 on traffic paint was $84,196.27 (excluding HST), which reflects an atypical reduction from normal years due to COVID-19 related closures.

Ennis Paint Canada ULC was the lowest of two bids submitted for the supply and delivery of traffic paint which met the City's terms and conditions in all areas and as summarized below. The forecasted 2021 expenditure is expected to be approximately $123,562.00, provided normal line painting operations resume. Under normal operating conditions, the 2022 and 2023 expenditures are expected to be approximately $125,400.00 and $127,238.00 respectively.

Tender	Ennis Paint	PolyMight International
2021 Estimated Cost	$123,562.00	$142,080.80
2022 Estimated Cost	$125,400.00	$148,330.00
2023 Estimated Cost	$127,238.00	$154,946.80
Total	**$376,200.00**	**$445,357.60**

Conclusion

Pavement markings are an important component of the transportation infrastructure maintenance. Participation in the EMOP purchasing cooperative provides cost efficiency for the partners. Civic Administration has reviewed the results of the tender bids through the use of the EMOP process and recommends Ennis Paint as the supplier. The submitted tender price provide the best value.

Prepared by:	**John Parsons, C.E.T.** **Division Manager, Road Operations and Forestry**
Submitted By:	**Doug MacRae, P.Eng., MPA** **Director of Roads and Transportation**
Recommended By:	**Kelly Scherr, P.Eng., MBA, FEC,** **Managing Director, Environmental Services and City Engineer**

c: John Freeman, Manager of Purchasing and Supply
Ennis Paint Canada ULC, 850 McKay Road, Pickering, Ontario, L1W 2Y4

Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Kelly Scherr, P. Eng., MBA, FEC**
Managing Director, Environmental & Engineering Services & City Engineer
Subject: **Contract Award: Tender RFT21-23**
2021 Infrastructure Renewal Program and
Mornington Stormwater Management Pond Expansion
Date: **April 20, 2021**

Recommendation

That on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer, the following actions **BE TAKEN** with respect to the award of contracts for the Mornington Stormwater Management Pond Expansion Project:

(a) the bid submitted by Bre-Ex Construction Inc. at its tendered price of, $4,347,747.11, excluding HST, for the Mornington Stormwater Management Pond Expansion Infrastructure Renewal Project, **BE ACCEPTED**; it being noted that the bid submitted by Bre-Ex Construction Limited was the lowest of six bids received and meets the City's specifications and requirements in all areas;

(b) The engineering fees for Stantec Consulting **BE INCREASED** to account for the additional contract administration days for the required oversight for the said project in accordance with the estimates, on file, to an upset amount of $124,423.20, excluding HST, from $633,183.39 to a total of $757,606.59, in accordance with Section 15.2 (g) of the Procurement of Goods and Services Policy;

(c) the financing for this project **BE APPROVED** as set out in the Sources of Financing Report attached, hereto, as Appendix A;

(d) the Civic Administration **BE AUTHORIZED** to undertake all administrative acts that are necessary in connection with this project;

(e) the approval given, herein, **BE CONDITIONAL** upon the Corporation entering into a formal contract, or issuing a purchase order for the material to be supplied and the work to be done, relating to this project (Tender RFT21-23); and,

(f) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

Executive Summary

Purpose

This report recommends the tender award of the 2021 Mornington Stormwater Management Pond Expansion and Infrastructure Renewal Program Project. The project includes reconstruction of Salisbury St, from Quebec St to Glasgow St, Glasgow St, from Salisbury St to Connaught Ave, and Connaught Ave, from Glasgow St to the west entrance of Mornington Park. The east end and the west end of the existing Mornington Stormwater Management Pond will be expanded, and the existing McCormick Water Reservoir will be decommissioned and filled in. A location map is included in Appendix ‘B’.

Context

The project area has had historical basement flooding, sewer overflows, and capacity constraints related to the sanitary sewer system. Quebec Street, between Oxford Street and Dundas Street is underserviced by aging sanitary and storm sewers and currently does not have a suitable stormwater outlet. The reconstruction of Salisbury Street, Glasgow Street and Connaught Avenue under the annual Infrastructure Renewal Program is required to provide future sewer network upgrades along Quebec Street and Oxford Street. This project also includes the removal of an obsolete drinking water reservoir located in McCormick Park.

Linkage to the Corporate Strategic Plan

The following report supports the Strategic Plan through the strategic focus area of "Building a Sustainable City" by ensuring:

- London's infrastructure is built, maintained, and operated to meet the long-term needs of our community by replacing aged and failing infrastructure with new materials and sizing new infrastructure to accommodate future development;
- Londoners can move around the city safely and easily in a manner that meets their needs by incorporating cycling infrastructure and safety enhancements;
- London has a strong and healthy environment by incorporating stormwater management quantity and quantity controls to protect downstream waterways;
- Improve London's resiliency to respond to potential future challenges;
- Build infrastructure to support future development and protect the environment;
- Maintain or increase current levels of service; manage the infrastructure gap for all assets; and
- Protect and enhance waterways, wetlands, and natural areas.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- Appointment of Consulting Engineers, Infrastructure Renewal Program, Civic Works Committee – July 14, 2019: Recommendation a)(i)
- Mornington Area Storm Drainage Servicing Class Environmental Assessment: Notice of Completion, Civic Works Committee – March 18, 2019
- Mornington Area Storm Drainage Servicing Environmental Assessment: Appointment of Consulting Engineer, Civic Works Committee – October 24, 2017

1.2 Mornington Storm Drainage EA

The City of London retained Stantec Consulting Ltd. to complete a Schedule B Municipal Class Environmental Assessment for the Mornington Area Storm Drainage Area that was finalized on April 4, 2019. The expansion of the existing Mornington stormwater management pond within McCormick Park was identified as the recommended solution to provide additional stormwater storage for the Quebec Street Sewer System. This additional capacity will allow for the future separation of combined sewers upstream in the drainage area, all to reduce overflows to the Thames River and mitigate basement flooding.

1.3 Water Reservoir Removal

Historically, the City of London had a well-based water distribution system, consisting of many well fields and several small water storage reservoirs to supply drinking water. Once connected to the Lake Huron Water Supply System in 1967, these wells became less and less needed. Several of the larger well fields remained in an active "emergency" use state, in which they could be called upon if needed. The last time this was the case was in 1988. Since then, through connecting to the Elgin Area Water Supply System, and with the construction of the Southeast Reservoir and Pumping Station, the "emergency" use of these wells was eliminated. Despite decommissioning of all the former water supply wells, the few small related underground storage reservoirs remained in place due to their innocuous impact and robust design. However, as time moves on, there is an inherent risk to leaving these structures in place. Since there is no effective use for these small, old reservoir structures, the formal decommissioning process is required to ensure ongoing public safety.

2.0 Discussion and Considerations

2.1 Project Description

The scope of construction for the Mornington Stormwater Management Pond Expansion Project includes:

- Expansion of the existing Mornington stormwater management pond;
- Removal of the McCormick Water reservoir (underground work to the east of existing pond);
- Watermain, sanitary and storm sewer replacement;
- Partial replacement of existing sewer private drain connections;
- Sidewalk replacement;
- Concrete curb replacement;
- New asphalt road surface; and,
- New plantings of native plant species planted along the banks of the new SWM facility and expanded park area to the west of the pond.

The area to the west will include an additional pathway loop with benches and additional plantings. Construction is expected to start in spring 2021 and anticipated to last until fall 2021.

2.2 Existing Road Conditions & Proposed Restoration

Connaught Street is presently an 8-metre-wide two-lane Neighbourhood Street with on-street parking which will only be impacted by construction approximately 160 metres on the westerly end of the road. Glasgow Street is presently a 7.75-metre-wide two-lane Neighbourhood Street which will be reduced to a 7.5 metre road width. Salisbury Street is presently a 6.5 metre wide single-lane Neighbourhood Street with a bus stop which will be widened to a 7.0 metre road width to improve bus travel safety. The boulevards are wide, ranging from 5 to 6 m, consisting of a variety of surfaces including grass, dirt, landscaped plantings, and hard surfaces. The asphalt, concrete, and catch basins are generally in poor condition and in need of replacement. Complete Streets has been considered on the impacted streets.

2.3 Public Engagement and Consultation

The Project Notice (letter #1) was mailed out to affected properties within and flanking the project design and construction limits dated August 21, 2020. Included with this Project Notice letter was a survey for residents to provide information on their property and input for consideration; 15 responses were received.

The project Pre-Construction Notice (letter #2) was mailed out to property owners that would be fronting or adjacent to the linear road construction portion of the works dated January 20, 2021. An additional Pre-Construction Notice letter was mailed out to properties that were not directly impacted by the road construction but may be impacted by the pond and park reconstruction and the decommissioning and removal of the water reservoir dated January 27, 2021. Included in this letter was an invitation for residents to view pre-recorded project information videos posted on the project webpage (https://getinvolved.london.ca/mornington). Topics covered by the presentations included timing of work, above ground and below ground scope of work, resident and business access impacts, and tree impacts.

Typically, the City would hold an in-person Project Update Meeting (PUM) for Infrastructure Renewal Program projects. Due to the COVID-19 pandemic, adjustments were made to ensure public safety and to follow restrictions on public gatherings. These pre-recorded project information videos were intended to convey the same information as would have been presented at an in-person PUM, with residents being able to contact the City's project manager directly with questions. To date, the City has received approximately a half-dozen inquiries from residents in response to the Mornington Pre-Construction Notice and posting of the project information videos, mainly dealing with individual property questions.

2.4 Environmental and Tree Impacts

An Environmental Impact Study (EIS) was completed by licenced ecologists and biologists to inventory and assess all wildlife and flora/fauna in the area in 2020. The EIS identifies a plan to ensure that the construction does not disrupt any Species at Risk and to ensure no harm comes to any animal or significant plant species. The EIS for McCormick Park identified several important species and features at the pond site and includes a full compensation plan to ensure the long-term sustainability of the natural features of the park area and its wildlife/flora/fauna.

In February 2021, there were 364 trees removed in preparation for the pond expansion and reservoir decommissioning. The EIS includes a plan to mitigate and compensate for the impacts to vegetation and tree removals. Ultimately, the goal is for the park area to be able to provide the drainage benefits determined by the Mornington Pond EA and for it to return to a high-quality naturalized park space following construction. To this end, the City has prepared a robust restoration/landscaping plan to re-naturalize the area and to create a walkable amenity space for the community to enjoy.

3.0 Financial Impact/Considerations

3.1 Tender Summary

Tenders for the Mornington Stormwater Management Pond Expansion and Infrastructure Renewal Project were issued on February 17, 2021 and closed on March 4, 2021. Six contractors submitted tender prices as listed below, excluding HST.

Table 1: Summary of submitted tender prices

Contractor	Company Name	Tender Price Submitted
1	Bre-Ex Construction Inc.	$4,347,747.11
2	291 Construction Ltd.	$4,924,879.14
3	Omega Contractors Inc.	$4,982,545.62
4	J-AAR Excavating Limited	$5,218,145.30
5	L-82 Construction Ltd.	$6,228,458.92
6	Amico Infrastructure (Oxford) Inc.	$6,673,692.45

All tenders have been checked by the Environmental and Engineering Services Department and Stantec Consulting Ltd. No mathematical errors were found. The results of the tendering process indicate a competitive process. The tender estimate just prior to tender opening was $5.04 M excluding HST. This tender price also includes values for coordinated City and external utility works. All tenders include a contingency and allowances of $500,000.

3.2 Consulting Services

Stantec Consulting Ltd. was awarded the detailed design of the Mornington Stormwater Management Pond Expansion Infrastructure Renewal Project by Council on July 21, 2020.

Due to the consultant's knowledge and positive performance on the detailed design, a proposal for contract administration was requested and the scope and fees were negotiated. Staff have reviewed the fee submission, including the time allocated to each project task, along with hourly rates provided by each of the consultant's staff members. That review of assigned personnel, time per project task, and hourly rates was consistent with other Infrastructure Renewal Program assignments of similar scope, noting that this assignment incorporates unique Stormwater Management Pond expansion and Water Reservoir Decommissioning elements.

The continued use of Stantec on this project for construction administration is of financial advantage to the City because the firm has specific knowledge of the project and has undertaken work for which duplication would be required if another firm were to be selected.

The City's construction administration requirement for the creation of record drawings following construction requires the reviewing professional engineer to seal the drawings based on field verification and ongoing involvement. This requirement promotes consultant accountability for the design. Consequently, the continued use of the consultant who created and sealed the design drawings is required in order maintain this accountability process and to manage risk.

3.3 Operating Budget Impacts

Additional annual sewer, water and SWM operating costs attributed to new infrastructure installation are summarized in the following table.

Table 2: Summary of annual operating cost increase

City Division	Rationale	Annual Operational Increase
Sewer Operations	Additional storm sewer and catch basins being constructed to new pond cell.	$100

City Division	Rationale	Annual Operational Increase
Water Operations	Water reservoir is being removed and no additional watermains are being installed.	$0
SWM Operations	Additional pond surface area to maintain, including trash removal and vegetation.	$250
Total		**$350**

Conclusion

Civic Administration has reviewed the tender bids and recommends Bre-Ex Construction Inc. be awarded the construction contract for the Mornington Stormwater Pond Expansion and Infrastructure Renewal Project at the submitted tender price of $4,347,747.11 (including contingency, excluding HST).

Prepared by: **Shawna Chambers, P. Eng., DPA, Division Manager Stormwater Engineering**

Submitted by: **Scott Mathers, MPA, P. Eng., Director, Water, Wastewater, Stormwater**

Recommended by: **Kelly Scherr, P.Eng., MBA, FEC, Managing Director, Environmental & Engineering Services and City Engineer**

CC: P. Titus, D. Gough, C. Ginty, K. Chambers, A. Rozentals

Appendix ‘A’ – Sources of Financing

Appendix ‘B’ – Location Map

Appendix "A"

#21054
April 20, 2021
(Award Contract)

Chair and Members
Civic Works Committee

RE: Tender RFT21-23 2021 Infrastructure Renewal Program and Mornington Stormwater Management Pond Expansion
(Subledger WS21C001)
Capital Project ES241421 - Infrastructure Renewal Program - Sanitary Sewers
Capital Project ES254021 - Infrastructure Renewal Program - Stormwater Sewers and Treatment
Capital Project ES3220 - Wetland Restoration & SWM Treatment Enhancement
Capital Project EW3564 - McCormick Park Reservoir Demolition
Capital Project EW376521 - Infrastructure Renewal Program - Watermains
Bre-Ex Construction Inc. - $4,347,747.11 (excluding HST)
Stantec Consulting - $757,606.59 (excluding HST)

Finance and Corporate Services Report on the Sources of Financing:
Finance and Corporate Services confirms that the cost of this project can be accommodated within the financing available for it in the Capital Budget and that, subject to the approval of the Managing Director, Environmental and Engineering Services and City Engineer, the detailed source of financing is:

Estimated Expenditures	**Approved Budget**	**Committed To Date**	**This Submission**	**Balance for Future Work**
ES241421 - Infrastructure Renewal Program - Sanitary Sewers				
Engineering	2,000,000	348,404	37,984	1,613,612
Construction	11,615,864	6,420,637	908,946	4,286,281
Construction (Utilities Share)	91,750	91,750	0	0
City Related Expenses	25,000	0	0	25,000
ES241421 Total	13,732,614	6,860,791	946,930	5,924,893
ES254021 - Infrastructure Renewal Program - Stormwater Sewers and Treatment				
Engineering	1,770,399	341,981	37,984	1,390,434
Construction	8,174,177	6,412,290	1,761,887	0
City Related Expenses	100,000	0	0	100,000
ES254021 Total	10,044,576	6,754,271	1,799,871	1,490,434
ES3220 - Wetland Restoration & SWM Treatment Enhancement				
Engineering	350,000	350,000	0	0
Construction	1,024,000	0	1,024,000	0
ES3220 Total	1,374,000	350,000	1,024,000	0
EW3564 - McCormick Park Reservoir Demolition				
Construction	250,000	0	219,903	30,097
EW376521 - Infrastructure Renewal Program - Watermains				
Engineering	2,500,000	287,211	50,645	2,162,144
Construction	13,719,930	6,801,367	509,531	6,409,032
EW376521 Total	16,219,930	7,088,578	560,176	8,571,176
Total Expenditures	$41,621,120	$21,053,640	$4,550,880	$16,016,600

Appendix "A"

#21054
April 20, 2021
(Award Contract)

Chair and Members
Civic Works Committee

RE: Tender RFT21-23 2021 Infrastructure Renewal Program and Mornington Stormwater Management Pond Expansion
(Subledger WS21C001)
Capital Project ES241421 - Infrastructure Renewal Program - Sanitary Sewers
Capital Project ES254021 - Infrastructure Renewal Program - Stormwater Sewers and Treatment
Capital Project ES3220 - Wetland Restoration & SWM Treatment Enhancement
Capital Project EW3564 - McCormick Park Reservoir Demolition
Capital Project EW376521 - Infrastructure Renewal Program - Watermains
Bre-Ex Construction Inc. - $4,347,747.11 (excluding HST)
Stantec Consulting - $757,606.59 (excluding HST)

Sources of Financing	**Approved Budget**	**Committed To Date**	**This Submission**	**Balance for Future Work**
ES241421 - Infrastructure Renewal Program - Sanitary Sewers				
Capital Sewer Rates	9,140,864	4,519,041	946,930	3,674,893
Drawdown from Sewage Works Reserve Fund	2,250,000	0	0	2,250,000
Federal Gas Tax	2,250,000	2,250,000	0	0
Other Contributions (Utilities)	91,750	91,750	0	0
ES241421 Total	13,732,614	6,860,791	946,930	5,924,893
ES254021 - Infrastructure Renewal Program - Stormwater Sewers and Treatment				
Capital Sewer Rates	820,480	820,480	0	0
Drawdown from Sewage Works Reserve Fund	6,974,096	3,683,791	1,799,871	1,490,434
Federal Gas Tax	2,250,000	2,250,000	0	0
ES254021 Total	10,044,576	6,754,271	1,799,871	1,490,434
ES3220 - Wetland Restoration & SWM Treatment Enhancement				
Drawdown from Sewage Works Reserve Fund	1,374,000	350,000	1,024,000	0
EW3564 - McCormick Park Reservoir Demolition				
Drawdown from Capital Water Reserve Fund	250,000	0	219,903	30,097
EW376521 - Infrastructure Renewal Program - Watermains				
Capital Water Rates	11,672,800	6,452,058	560,176	4,660,566
Drawdown from Capital Water Reserve Fund	3,910,610	0	0	3,910,610
Federal Gas Tax	636,520	636,520	0	0
EW376521 Total	16,219,930	7,088,578	560,176	8,571,176
Total Financing	$41,621,120	$21,053,640	$4,550,880	$16,016,600

Financial Note: Construction	**ES241421**	**ES254021**	**ES3220**	**EW3564**
Contract Price	$893,225	$1,731,414	$1,006,289	$216,100
Add: HST @13%	116,119	225,084	130,818	28,093
Total Contract Price Including Taxes	1,009,344	1,956,498	1,137,107	244,193
Less: HST Rebate	-100,398	-194,611	-113,107	-24,290
Net Contract Price	$908,946	$1,761,887	$1,024,000	$219,903

Appendix "A"

#21054
April 20, 2021
(Award Contract)

Chair and Members
Civic Works Committee

RE: Tender RFT21-23 2021 Infrastructure Renewal Program and Mornington Stormwater Management Pond Expansion
(Subledger WS21C001)
Capital Project ES241421 - Infrastructure Renewal Program - Sanitary Sewers
Capital Project ES254021 - Infrastructure Renewal Program - Stormwater Sewers and Treatment
Capital Project ES3220 - Wetland Restoration & SWM Treatment Enhancement
Capital Project EW3564 - McCormick Park Reservoir Demolition
Capital Project EW376521 - Infrastructure Renewal Program - Watermains
Bre-Ex Construction Inc. - $4,347,747.11 (excluding HST)
Stantec Consulting - $757,606.59 (excluding HST)

Financial Note: Construction continued	**EW376521**	**Total**
Contract Price	$500,719	$4,347,747
Add: HST @13%	65,093	565,207
Total Contract Price Including Taxes	565,812	4,912,954
Less: HST Rebate	-56,281	-488,687
Net Contract Price	$509,531	**$4,424,267**

Financial Note: Engineering	**ES241421**	**ES254021**	**EW376521**	**Total**
Contract Price	$0	$0	$0	$757,607
Less Amount Previously Approved	0	0	0	633,184
Contract Price	37,327	37,327	49,769	124,423
Add: HST @13%	4,853	4,853	6,470	16,176
Total Contract Price Including Taxes	42,180	42,180	56,239	140,599
Less: HST Rebate	-4,196	-4,196	-5,594	-13,986
Net Contract Price	$37,984	$37,984	$50,645	**$126,613**

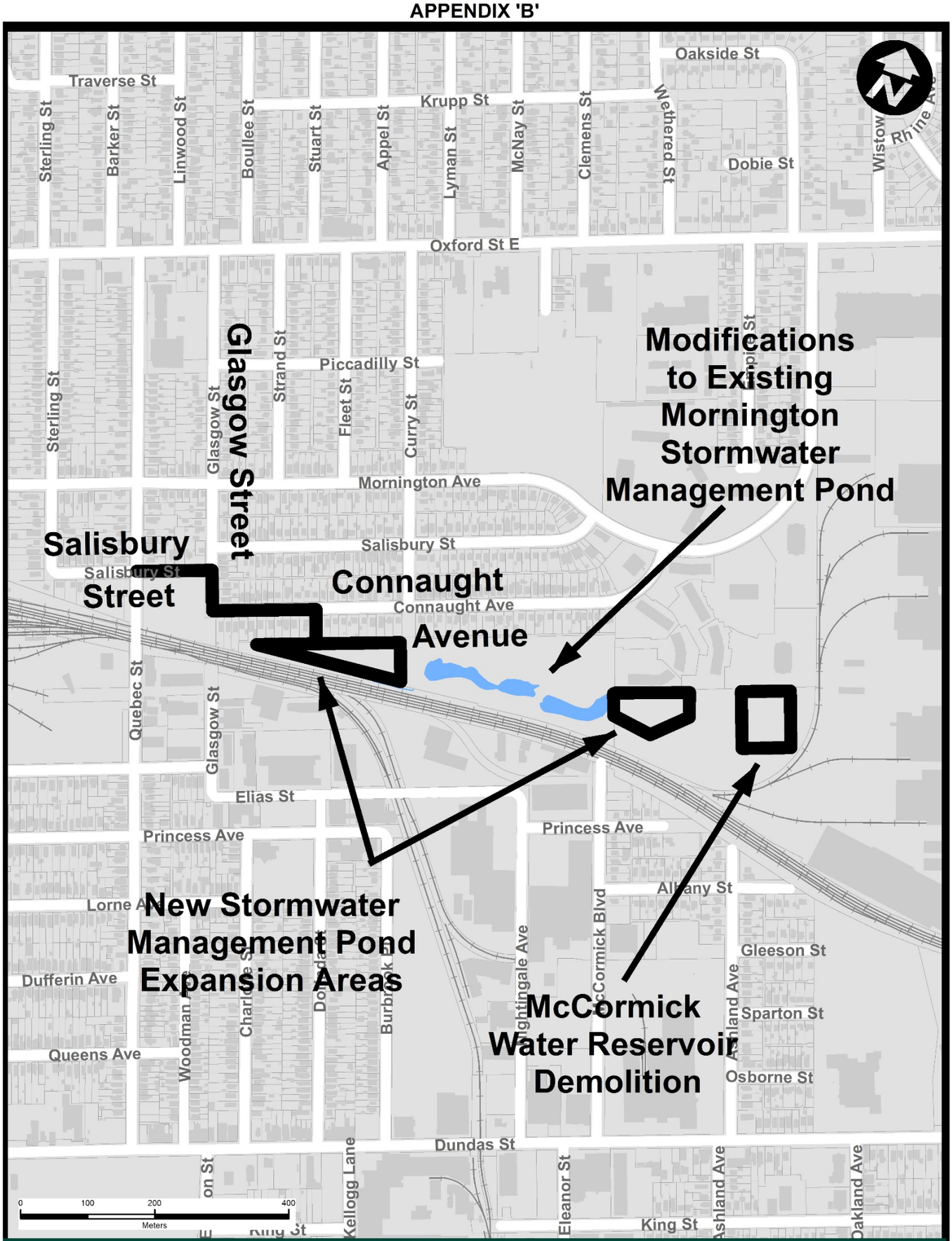
Total Construction and Engineering **$4,550,880**

Note 1: There will be additional annual operating costs of $100 for Sewer Operations and $250 for SWM Operations.

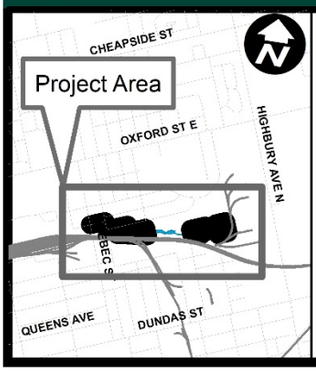
Jason Davies
Manager of Financial Planning & Policy

jg

APPENDIX 'B'



LOCATION MAP



2021 Infrastructure Renewal Program
Contract 11

Salisbury Street from Quebec Street to Glasgow Street
Glasgow Street from Salisbury Street (west leg) to Connaught Avenue
Connaught Avenue from Glasgow Street to McCormick Park entrance
approximately 140m west of Curry Street
Modifications to Existing Mornington Stormwater Management Pond
New Stormwater Management Pond Expansion
McCormick Water Reservoir Demolition

Project Area

Map Produced by the Sewer Engineering Division
February 18 2021 CM

London CANADA
300 Dufferin Avenue,
PO Box 5035
London, Ontario
N6A 4L9
www.London.ca

Report to Chair and Members Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **George Kotsifas, Managing Director, Development and Compliance Services & Chief Building Official**
Subject: **Street Renaming portion of Blackwater Road (Plans 33M-764 and 33M-787) File MN-9313**
Date: **April 20, 2021**

Recommendation

That, on the recommendation of the of the Director, Development Services, the following actions be taken with respect to the application by Peter Sergautis for the proposed renaming of a portion of Blackwater Road:

a) the proposed by-law, attached as Appendix A, **BE INTRODUCED** at the Municipal Council meeting to be held on May 4, 2021, to permit the portion of "Blackwater Road" from Sunningdale Road East northward, adjacent to Block 1, Part of Lot 13, Concession 6 (Geographic Township of London) City of London, County of Middlesex within Registered Plan 33M-764 (Figure 3) and adjacent to Block 1, 2 and 3, Part of Lot 13, Concession 6 (Geographic Township of London) City of London, County of Middlesex within Registered Plan 33M-787 (figure 4), to be renamed to "Appletree Gate."

b) the Mayor and the City Clerk BE AUTHORIZED to execute this Agreement, any amending agreements and all documents required to fulfill its conditions.

Executive Summary

Peter Sergautis submitted a Street Renaming application on February 16, 2021 requesting "Blackwater Road" be renamed to "Appletree Gate." The portion of "Blackwater Road" subject to renaming is located north of Sunningdale Road East between Sunningdale Road and Superior Road. Originally, this portion of Blackwater Road was named as a continuation of the existing Blackwater Road on the south side of Sunningdale Road East.

The requested renaming conforms to the City's Street Naming Guidelines and no objections have been noted by the Municipal Addressing Advisory Group (MAAG).

To date, no addresses have been created for this portion of Blackwater Road. Approval of the request would result in a technical amendment to the street name on Plans 33M-764 and 33M-787. No costs are required for signage or compensation to the property owners.

Linkage to the Corporate Strategic Plan

Building a Sustainable City - London's growth and development is well planned and sustainable over the long term.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

The original application for Draft Plan of Subdivision Approval was granted on September 9, 2014 and named Applewood Subdivision and was divided into 6 Phases. Phase 1A was Registered on August 15, 2018 as 33M-749, Phase 1B was Registered on June 20, 2019 as 33M-764 and Phase 2A was Registered on September 14, 2020 as 33M-787. There are three remaining phases of development.

2.0 Discussion and Considerations

The portion of “Blackwater Road” subject to renaming as “Appletree Gate” runs north of Sunningdale Road East and is geographically located between two Registered Plans. Registered Plan 33M-764 to the east of “Blackwater Road” and 33M-787 to the west of “Blackwater Road”. The renaming would align with the developer’s requested street name for the lands under review in the northern part of the Applewood Subdivision ending at Superior Road.

The requested renaming conforms to the City’s Street Naming Guidelines and no objections have been noted by the Municipal Addressing Advisory Group (MAAG).

To date, no addresses have been created for this portion of Blackwater Road. Approval of the request would result in a technical amendment to the established street name and no costs are required for signage or compensation for property owners.

One street sign has been installed at the northwest corner of Sunningdale Road East and Blackwater Road. Subject to Council approval and passing of the bylaw, the applicant has agreed that the existing street sign would be removed and highly visible temporary signage be installed for EMS purposes until such time that the future phase of the Subdivision is underway and permanent correct signage is installed.

Figure 1 Location map of Applewood Subdivision and proposed street name change.

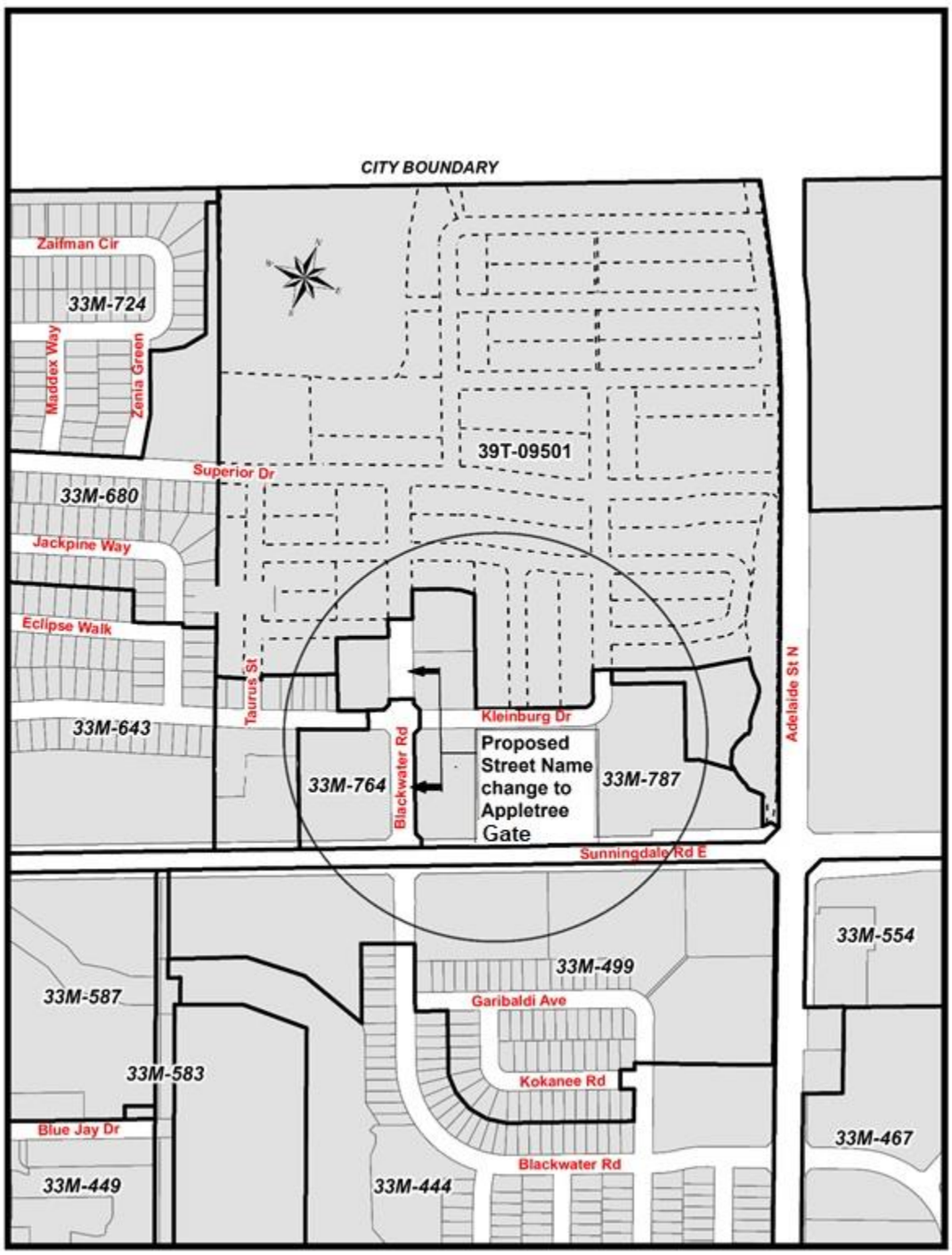


Figure 2 Existing limits of Blackwater Road.

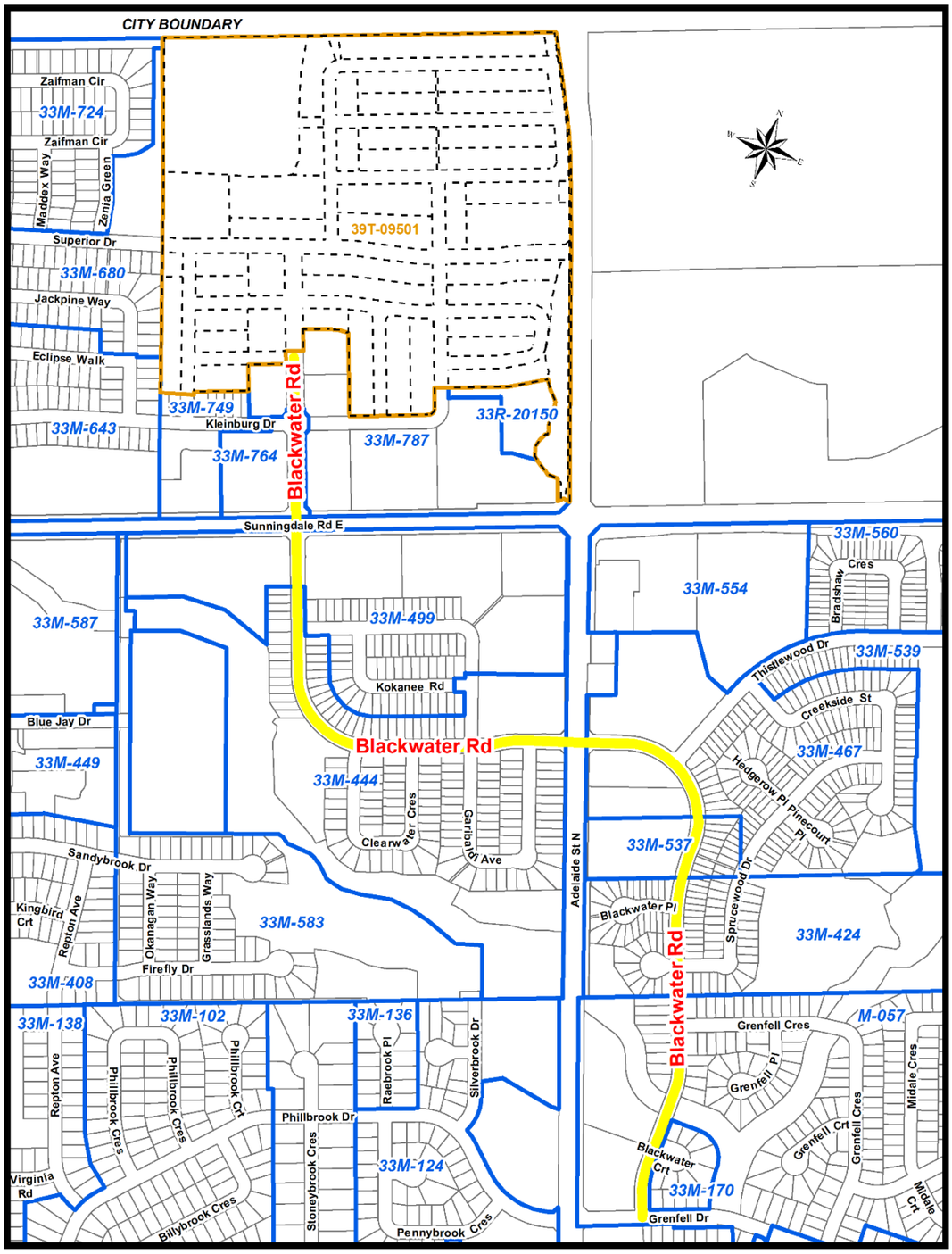


Figure 2 Registered Plan 33M-764, showing location of Blackwater Road.

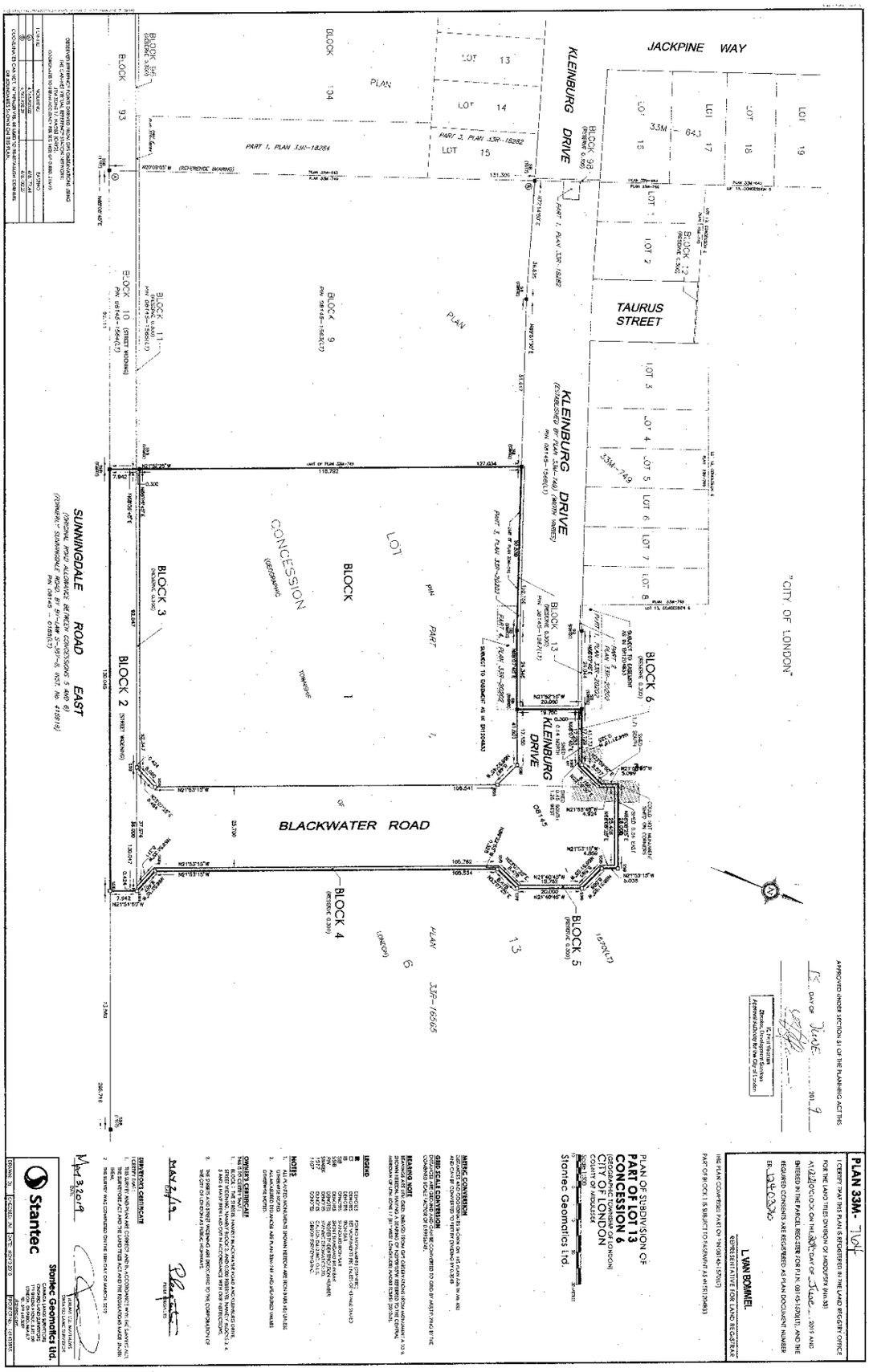
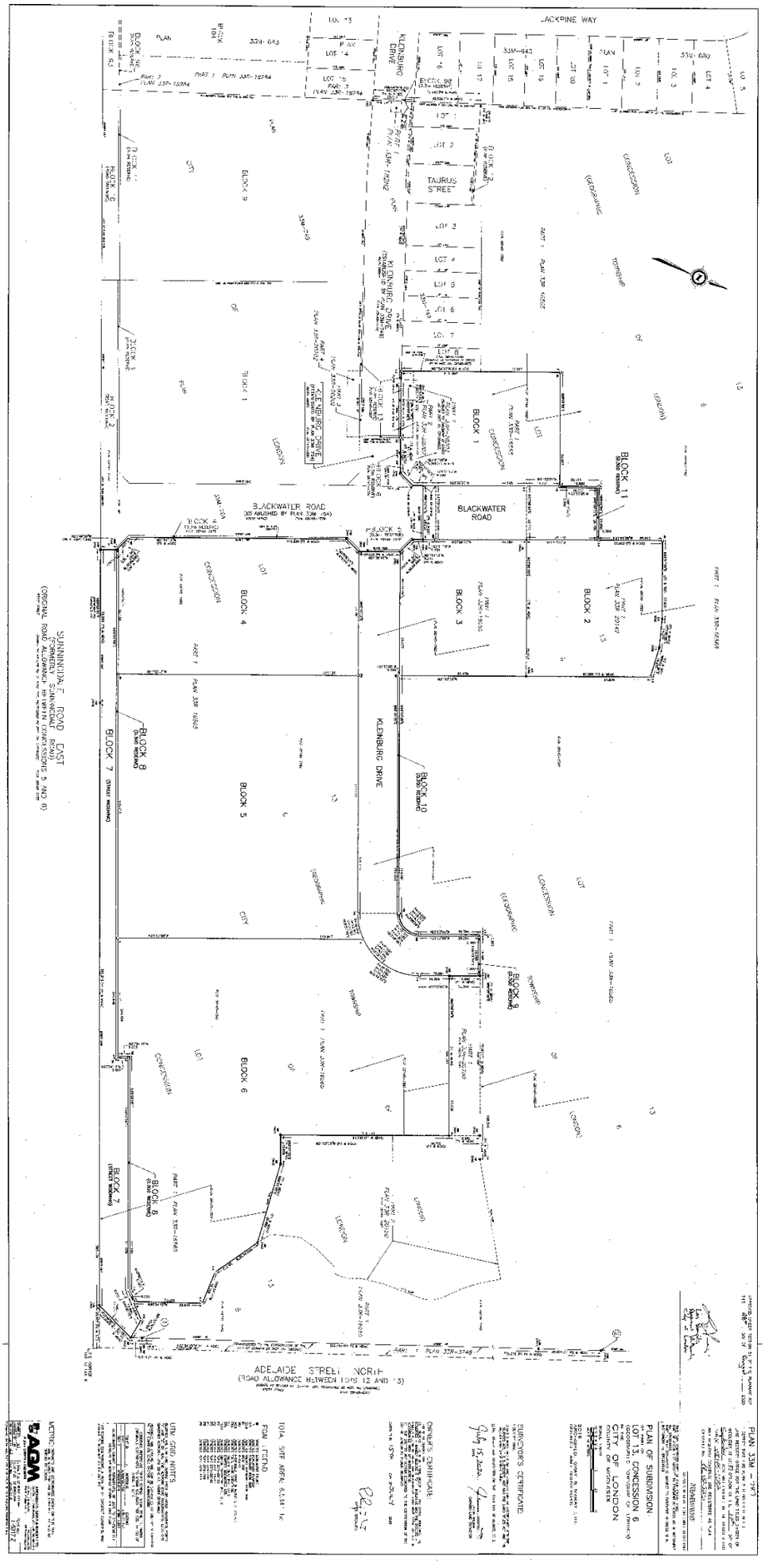


Figure 3 Registered Plan 33M-787, showing location of Blackwater Road.



3.0 Financial Impact/Considerations

Per the Street Naming Guidelines, the applicant is required to fully cover the costs and provide compensation to residents affected by the street renaming.

There are no residents on this portion of “Blackwater Road”, therefore there is no direct financial impact to the applicant or the City.

4.0 Key Issues and Considerations

There are no key issues or considerations with this application.

Conclusion

With the approval of the recommended Street Renaming, as directed by Council, Civic Administration will proceed to rename “Blackwater Road” on Plan 33M-764 to “Appletree Gate” and rename “Blackwater Road” on Plan 33M-787 to “Appletree Gate”.

Prepared by:	**June-Anne Reid, Development Documentation Coordinator**
Recommended by:	**Paul Yeoman, RPP, PLE, Director, Development Services**
Submitted by:	**George Kotsifas, P.Eng., Managing Director Development & Compliance Services and Chief Building Official**

Appendix A

Bill No. [no. inserted by Clerk's Office]
2021

By-law No. [inserted by Clerk's]

A By-law to rename a portion of "Blackwater Road" from "Sunningdale Road East", northward to Block 5, Part of Lot 13 Concession 6, on Registered Plan 33M-764, and northward to Block 11, Part of Lot 13 Concession 6, on Registered Plan 33M-787 to "Appletree Gate".

WHEREAS the Municipal Council of The Corporation of the City of London deems it expedient to rename the portion of Blackwater Road from Sunningdale Road East, northward to Block 5, Part of Lot 13 Concession 6, on Registered Plan 33M-764, and northward to Block 11, Part of Lot 13 Concession 6, on Registered Plan 33M-787 to Appletree Gate;

NOW THEREFORE the Municipal Council of The Corporation of the City of London enacts as follows:

1. That portion of "Blackwater Road" from "Sunningdale Road East", northward to Block 5, Part of Lot 13 Concession 6, on Registered Plan 33M-764, and northward to Block 11, Part of Lot 13 Concession 6, on Registered Plan 33M-787 shall hereinafter be called and known as Appletree Gate, and the name of the said street is hereby changed accordingly;

2. This by-law comes into force and effect on the day it is passed.

PASSED in Open Council on May 4, 2021.

Ed Holder
Mayor

Catharine Saunders
City Clerk

First Reading – May 4, 2021
Second Reading – May 4, 2021
Third Reading – May 4, 2021

Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Cathy Saunders, City Clerk**
Subject: **Public Participation Meeting - Amendments to Consolidated Fees and Charges By-law**
Date: **April 20, 2021**

Recommendation

That, on the recommendation of the City Clerk, on the advice of the Director, Environment, Fleet and Solid Waste, the attached proposed by-law (Appendix "A") being "A by-law to amended By-law A-56 being "A by-law to provide for Various Fees and Charges" by adding fees related to the London Hefty® EnergyBag® Pilot Project and the Bike Lockers Pilot Project", BE INTRODUCED at the Municipal Council meeting to be held on May 4, 2021.

Executive Summary

The purpose of this report is to add fees to the City of London's Fees and Charges By-law related to the London Hefty® EnergyBag® Pilot Project and the Bike Lockers Pilot Project.

Analysis

1.0 Background Information

1.1 Previous Reports

- March 30, 2021 – Civic Works Committee Item #2.12
- July 23, 2019 – Civic Works Committee – Item #2.5

2.0 Discussion and Considerations

2.1 London's Hefty® EnergyBag® Pilot Project – Orange Bags

The London Hefty® EnergyBag® Pilot Project began in October 2019. Approximately 13,000 households were provided with a free 20-bag package of Hefty® EnergyBag® orange bags and instructed to fill them with hard-to-recycle plastics that are not currently collected in the Blue Box Program. These are materials that would have otherwise been landfilled.

The Pilot Project will transition to the next Project phase in which some participants will be asked to purchase the bags. London is the first Canadian city to implement Hefty® EnergyBag® usage. There are several communities in the United States that have implemented the program city-wide, with participants purchasing bags through retail locations. This next step is included in the London Pilot Project.

The retail price of the 20-bag package is approximately $8.00 Canadian. The price of the Hefty® orange bag is higher than other plastic bags as the purchase price of the bag includes most (not all) of the costs associated with preparing the material for end markets, transportation to end markets and the further cost of processing this material into new products or energy sources. Other costs of the program that are not included in the purchase price include London's collection and handling costs. A retail price that would include a full cost recovery is estimated to be in the range of $8 to $10 per 20-bag roll.

For the London Pilot Project, it is proposed that a price of $5 per 20-bag package (including HST) be established. This price will be in place for the next Project phase from May 2021 to April 2022. The findings from the next phase are important to understand the willingness of Londoners to participate in this program when they are required to purchase the bags. Future pricing will be reviewed at the end of the Pilot Project. During the Pilot Project bags would be available for purchase from designated EnviroDepots. The Civic Administration is also exploring the option for the sale of bags from small neighbourhood retailers within the Project neighbourhoods.

2.2 Bike Lockers Pilot Project – Rental Fees

The City of London purchased nine bike lockers (capacity for 18 bikes) as part of a Pilot Project to provide secure bike parking in and around downtown.

A bike locker is a large box in which up to two bicycles can be locked separately. They provide a higher level of security and convenience for Londoners riding a bike. Bike lockers help prevent theft, provide weather protection, and deter casual vandalism.

Two types of rental lockers will be available: hourly rental rates and a monthly rental rate. The fees for the Pilot Project (May 2021 to April 2022) have been based on approximately half the price of vehicle parking rates. The following outlines the proposed fees and the rationale for the suggested fee.

Hourly Rental Rate
Free for the first 2 hours; then $0.50/ per hour.
Maximum 24 hours. Then resets for new rental period.

Payment will available through using the Bluetooth-based Movatic application on a smartphone, available through the Apple App Store and Google Play.

The rationale for this proposed hourly rate is based on advice from Cyclesafe, the locker manufacturer. For a city the size of London, the average rental rates are $1.25/hour and $5/day. In addition, vehicle drivers parking in the core area currently receive two hours of free parking if they use the HonkMobile app. The proposed hourly rate will underline the value of higher-order bike parking, encourage rental turnover, while recognizing that London cyclists are not used to paying for bike parking.

Monthly Rental Rate
$20 per month.
$100 deposit to obtain key; refundable upon return.
Rental applications and payments are processed through the City Clerk's Office at City Hall.

The rationale for this proposed monthly rental rate is based on information obtained from several other jurisdictions that offer the locker rentals at $10/month for a minimum of four months. London's lockers are proposed to be offered on a monthly basis as a pilot to determine preliminary interest and use. In addition, London drivers parking monthly in downtown City parking lots are charged a minimum $50/month.

During this Pilot Project, the Civic Administration will be offering a partial rebate on the monthly rate if the participant chooses to engage in a survey regarding their bike parking experience.

3.0 Financial Impact/Considerations

There are no significant financial implications as the proposed fees are intended to assist with the cost of the Pilot Projects.

4.0 Conclusion

The Civic Administration recommends that the fees outlined in this report related to the London Hefty® EnergyBag® Pilot Project and a Bike Lockers Pilot Project be added to the City of London's Fees and Charges By-law.

Prepared and Recommended by: Cathy Saunders, City Clerk

APPENDIX “A”

Bill No.
2021

By-law No. A-

A by-law to amend By-law No. A-56 being “A by-law to provide for Various Fees and Charges” ” by adding fees related to the London Hefty® EnergyBag® Pilot Project and the Bike Lockers Pilot Project.

WHEREAS subsection 5(3) of the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended, provides that a municipal power shall be exercised by by-law;

AND WHEREAS section 9 of the *Municipal Act, 2001* provides that a municipality has the capacity, rights, powers and privileges of a natural person for the purpose of exercising its authority under this or any other Act;

AND WHEREAS section 10(1) of the *Municipal Act, 2001* provides that a municipality may provide any service or thing that the municipality considers necessary or desirable for the public;

AND WHEREAS section 10(2) of the *Municipal Act, 2001* provides that a municipality may pass by-laws respecting: in paragraph 7, Services and things that the municipality is authorized to provide under subsection (1);

AND WHEREAS section 391(1) of the *Municipal Act, 2001* provides that a municipality may impose fees or charges on persons:

(a) for services and activities provided or done by or on behalf of it;
(b) for costs payable by it for services and activities provided or done by or on behalf of any other municipality or any local board; and
(c) for the use of its property including property under its control;

AND WHEREAS it is deemed expedient to pass this by-law;

NOW THEREFORE the Municipal Council of The Corporation of the City of London enacts as follows:

1. Schedules 1 and 2 of By-law A-56 entitled “A By-law to provide for Various Fees and Charges” be amended in the Environmental Services Grouping by adding the following new fee under “Recycling & Composting”:

“London Hefty® EnergyBag® Pilot Project - $5.00 per box of 20 bags (including HST) effective May 4, 2021 to April 30, 2022”

2. Schedules 1 and 2 of By-law A-56 entitled “A by-law to provide for Various Fees and Charges” be amended in the Environmental Services Grouping by adding the following fees effective May 4, 2021 to April 30, 2022:

Bike Lockers Pilot Project Rental Fees

<u>Hourly Rental Rate</u>
Free for the first 2 hours; then $0.50/ per hour.
Maximum 24 hours. Then resets for new rental period.

Monthly Rental Rate
$20 per month.
$100 deposit to obtain key; refundable upon return.
Rental applications and payments are processed through the City Clerk's Office at City Hall.

3. This by-law comes into force on the day it is passed.

PASSED in Open Council on May 4, 2021.

Ed Holder
Mayor

Catharine Saunders
City Clerk

First Reading – May 4, 2021
Second Reading – May 4, 2021
Third Reading – May 4, 2021

DEFERRED MATTERS

CIVIC WORKS COMMITTEE

as of March 22, 2021

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
1.	**Rapid Transit Corridor Traffic Flow** That the Civic Administration BE DIRECTED to report back on the feasibility of implementing specific pick-up and drop-off times for services, such as deliveries and curbside pick-up of recycling and waste collection to local businesses in the downtown area and in particular, along the proposed rapid transit corridors.	December 12, 2016	Q4, 2020	K. Scherr J. Dann	
2.	**Garbage and Recycling Collection and Next Steps** That, on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer, with the support of the Director, Environment, Fleet and Solid Waste, the following actions be taken with respect to the garbage and recycling collection and next steps: b) the Civic Administration BE DIRECTED to report back to Civic Works Committee by December 2017 with: i) a Business Case including a detailed feasibility study of options and potential next steps to change the City's fleet of garbage packers from diesel to compressed natural gas (CNG); and, ii) an Options Report for the introduction of a semi or fully automated garbage collection system including considerations for customers and operational impacts.	January 10, 2017	Q2, 2021	K. Scherr J. Stanford	
3.	**Bike Share System for London – Update and Next Steps** That, on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer, the following actions be taken with respect to the potential introduction of bike share to London:	August 12, 2019	Q2, 2021	K. Scherr J. Stanford	

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
	that the Civic Administration BE DIRECTED to finalize the bike share business case and prepare a draft implementation plan for a bike share system in London, including identifying potential partners, an operations plan, a marketing plan and financing strategies, and submit to Civic Works Committee by January 2020; it being noted that a communication from C. Butler, dated August 8, 2019, with respect to the above matter was received.				
4.	**745-747 Waterloo Street** That, on the recommendation of the Managing Director, Planning and City Planner, the following actions be taken with respect to the application of The Y Group Investments and Management Inc., relating to the property located at 745-747 Waterloo Street: b) the Civic Administration BE REQUESTED to review, in consultation with the neighbourhood, the traffic and parking congestion concerns raised by the neighbourhood and to report back at a future Planning and Environment Committee meeting; it being further noted that the Planning and Environment Committee reviewed and received the following communications with respect to this matter: a communication from B. and J. Baskerville, by e-mail; a communication from C. Butler, 863 Waterloo Street; and, a communication from L. Neumann and D. Cummings, Co-Chairs, Piccadilly Area Neighbourhood Association; it being pointed out that at the public participation meeting associated with these matters, the individuals indicated on the ~~attached~~ public participation meeting record made oral submissions regarding these matters; it being further noted that the Municipal Council approves this application for the following reasons: the recommended Zoning By-law Amendment would allow for the reuse of the existing buildings with an expanded	October 2, 2018	Q2, 2021	K. Scherr	

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
	range of office conversion uses that are complementary to the continued development of Oxford Street as an Urban Corridor, consistent with The London Plan polices for the subject site. Limiting the requested Zoning By-law Amendment to the existing buildings helps to ensure compatibility with the surrounding heritage resources and also that the requested parking and landscaped area deficiencies would not be perpetuated should the site be redeveloped in the future. While the requested parking deficiency is less than the minimum required by zoning, it is reflective of the existing conditions. By restricting the office conversion uses to the ground floor of the existing building at 745 Waterloo Street and the entirety of the existing building at 747 Waterloo Street (rather than the entirety of both buildings, as requested by the applicant), the parking requirements for the site would be less than the parking requirements for the existing permitted uses. The applicant has indicated a willingness to accept the special provisions limiting the permitted uses to the ground floor of the existing building at 745 Waterloo Street and to the entirety of the existing building at 747 Waterloo Street.				
5.	**Best Practices for Investing in Energy Efficiency and GHG Reduction** That Civic Administration BE REQUESTED to develop a set of guidelines to evaluate efficiency and Greenhouse Gas reduction investments and provide some suggested best practices.	June 18, 2019	Q2, 2021	K. Scherr J. Stanford	
6.	**MADD Canada Memorial Sign** That the following actions be taken with respect to the memorial sign request submitted by Shauna and David Andrews, dated June 1, 2020, and supported by Mothers Against Drunk Driving (MADD) Canada: a) the Civic Administration BE DIRECTED to engage in discussions with MADD Canada regarding MADD Canada Memorial Signs and bring forward a proposed Memorandum of Understanding with MADD Canada for Council's approval;	July 14, 2020	Q4, 2021	D. MacRae A. Salton	

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
	it being noted that MADD will cover all sign manufacturing and installation costs; it being further noted that the Ministry of Transportation and MADD have set out in this Memorandum of Understanding ("MOU") the terms and conditions for the placement of memorial signs on provincial highways which is not applicable to municipal roads; it being further noted that MADD provides messages consistent with the London Road Safety Strategy; and, b) the Civic Administration BE DIRECTED to work with MADD Canada to find a single permanent location in London for the purpose of memorials.				
7.	**Street Renaming By-law, Policies and Guidelines** That the following actions be taken with respect to the street renaming of Plantation Road: b) the Civic Administration BE DIRECTED to undertake a review of City's By-laws, Policies and Guidelines relating to street naming processes and approvals and report back to the Civic Works Committee on any recommended changes to the process(es) that would support and implement the City's commitment to eradicate anti-Black, anti-Indigenous and people of colour oppression; it being noted that the report back is to include a review of the request set out in the above-noted petition, recognizing that, historically, the word "Plantation" has a strong correlation to slavery, oppression and racism;	September 22, 2020	TBD	G. Kotsifas	
8.	**Updates - 60% Waste Diversion Action Plan Including Green Bin Program** d) the Civic Administration BE DIRECTED to: i) continue to prioritize work activities and actions that also contribute to the work of the London Community Recovery Network; and,	November 17, 2021	June 2021	K. Scherr J. Stanford	

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
	ii) submit a report to the Civic Works Committee by June 2021 that outlines advantages, disadvantages, and implementation scenarios for various waste reduction and reuse initiatives, including but not limited to, reducing the container limit, examining the use of clear bags for garbage, mandatory recycling by-laws, reward and incentive systems, and additional user fees.				
9.	**Green Bin Program Design - Community Engagement Feedback** That, on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer the following actions be taken with respect to the staff report dated March 30, 2021, related to the Green Bin Program Design and Community Engagement Feedback: e) the Civic Administration BE DIRECTED to report back at a future meeting of the Civic Works Committee on the outcome of the procurement processes and provide details on the preferred mix of materials to collect in the Green Bin and any final design adjustments based on new information; and, f) the Civic Administration BE DIRECTED to report back to the Civic Works Committee by September 2021 on municipal programs options, advantages, disadvantages and estimated costs to address bi-weekly garbage concerns.	March 30, 2021	TBD, September 2021	K. Scherr J. Stanford	
10.	**Imperial Road Sidewalk - Councillor M. Cassidy** That the Civic Administration BE DIRECTED to report back to a future meeting of the Civic Works Committee with the results of the photometric study on Imperial Road and the detailed design of the proposed sidewalk on the east side of Imperial Road prior to tendering or commencing work; it being noted that a communication, dated March 24, 2021, from Councillor M. Cassidy, with respect to this matter, was received.	March 30, 2021	TBD	K. Scherr D. MacRae	