Agenda
Civic Works Committee

6th Meeting of the Civic Works Committee

April 20, 2022, 12:00 PM

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), M. van Holst, J. Helmer, P. Van Meerbergen, J. Fyfe-Millar, Mayor E. Holder

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Pages

1. Disclosures of Pecuniary Interest

2. Consent

3. Scheduled Items

4. Items for Direction

(Note: A petition with approximately 53 signatures is on file in the City Clerk's Office.)

5. Deferred Matters/Additional Business

Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Kelly Scherr, P. Eng., MBA, FEC**
Deputy City Manager, Environment & Infrastructure
Subject: **Appointment of Transportation and Mobility Big Data Provider – Irregular Result**
Date: **April 20, 2022**

Recommendation

That, on the recommendation of the Deputy City Manager, Environment & Infrastructure, the following actions **BE TAKEN** with respect to the appointment of a transportation and mobility Big Data provider:

(a) Streetlight Data Inc. **BE APPOINTED** the vendor to provide Transportation and Mobility Big Data per their submitted proposal, in the total amount of $168,935, including contingency, excluding HST; in accordance with Sections 12.2 (c) of the Procurement of Goods and Services Policy, it being noted that this is an Irregular Result due to only one submission being received to the open call for proposals;

(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 approvals given, herein, **BE CONDITIONAL** upon the Corporation entering into a formal contract with the consultant for the work; and,

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

Executive Summary

Purpose

This report seeks the approval of the Municipal Council to appoint Streetlight Data Inc. as the vendor to provide Transportation and Mobility Big Data to be used for the Mobility Master Plan project and a range of other planning and engineering studies. With only one proposal received through the competitive process, award of this assignment is subject to review per Section 19.4 of the Procurement of Goods and Services Policy.

Context

The City is currently undertaking the development of a new Mobility Master Plan to improve the movement of people and goods for a growing city. Transportation and Mobility Big Data provides an opportunity to enhance the Mobility Master Plan and a range of other planning and engineering studies by providing information that has not been available for previous master planning processes.

Linkage to the Corporate Strategic Plan

Procurement of Transportation and Mobility Big Data will inform initiatives that advance and support numerous strategies under the City’s Strategic Plan Areas of Focus:

- Strengthening Our Community
- Building a Sustainable City
- Growing Our Economy
- Creating a Safe London for Women and Girls
- Leading in Public Service
- Commitment to Anti-Racism and Anti-Oppression

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- November 2, 2021, Civic Works Committee, Initiation of the Mobility Master Plan Development
- March 1, 2022, Civic Works Committee, Mobility Master Plan Appointment of Consultant

2.0 Discussion and Considerations

2.1 Project Background

The City is currently undertaking the development of a new Mobility Master Plan to improve the movement of people and goods for a growing city. The Mobility Master Plan will outline transportation and mobility policies, plans, and programs for the next 25 years. To assist this study, and a range of other planning and engineering studies, the City requires Transportation and Mobility Big Data.

2.2 Transportation and Mobility Big Data

As part of the Mobility Master Plan, transportation modelling will be used to forecast future transportation and mobility needs for the City of London. This helps inform decisions about future mobility priorities and areas of focus. The City currently has a Visum city-wide transportation model that was last updated in 2018 with a 2016 base year. The model will need to be updated, calibrated and baselined as part of the Mobility Master Plan.

To update, calibrate and baseline the model, transportation and mobility data is typically collected from traffic, pedestrian and cyclist counters. The City currently collects data on how people move using approximately 100 permanent count stations, 26 Eco-Counters in London's streets and park system, and annual location-specific count programs. Transportation and Mobility Big Data will be used to augment this data, providing significantly more data to inform transportation and mobility planning decisions. The Big Data approach provides travel data dating back to pre-2020 time periods, helping provide information on how travel patterns have changed both in the pre and post COVID periods.

Transportation and Mobility Big Data provides information on how people move using data sourced from navigation devices such as the ones located in smartphones, cars or trucks. This is an emerging field of data collection. Over the past decade, third party suppliers have started to process these datasets for use by transportation planners and engineers. For example, Big Data can provide information on:

- trip length;
- regional origin and destination patterns;
- trip purpose;
- mode choice (including walking, cycling, transit, truck, rail and automobile);

- various time period analysis settings (including weekend peaks);
- trends over time (including pre-COVID);
- mode share breakdown;
- average travel speeds;
- average trip length;
- travel time reliability; and,
- demographic information.

To protect the privacy of individuals, no real-time data is used (i.e. data is updated with a certain time delay) and the data files do not contain any personally identifiable information. Big data can efficiently help augment the City's existing traffic count information to reliably update the city's transportation model in forecasting the mobility needs of Londoners over the next 25 years.

Transportation and Mobility Big Data will be used to assist the Mobility Master Plan study as well as a range of other planning and engineering studies including potentially the Climate Emergency Action Plan, Core Area Action Plan, transportation impact assessments, traffic calming studies, transit studies, active transportation studies and the Blackfriars Bridge review of operations.

2.3 Procurement Process

The procurement process for this study has been undertaken in accordance with the City's Procurement of Goods and Services Policy. As Big Data is an emerging field, the City used this procurement process as an opportunity to determine what industry suppliers, if any, are currently able to supply transportation and mobility big data. An open and competitive Request for Proposal was issued in February 2022. There were nine plan takers. Streetlight Data Inc. submitted the only bid, with two cost subscription options. The primary difference between the two options in the Streetlight Data Inc. proposal was the number of zones available for data reporting and analysis. The review team determined that the lower cost option provided sufficient data granularity to adequately inform the anticipated analyses.

Per Section 19.4 (b) and (c) of the Procurement of Goods and Services Policy, the bid submission was reviewed by an evaluation team of staff from Transportation and Mobility with assistance of Purchasing and Supply and considering the input of other areas that provided input on the RFP. The evaluation committee reviewed the proposal against the pre-established evaluation criteria which included:

- mandatory minimum requirements such as data for travel modes (such walking, cycling, auto, transit and heavy trucks) pre and post COVID,
- privacy considerations,
- a self-serve web tool and analysis data such as trip length, travel speed and origin/destination patterns.

Staff from Information Technology Services have reviewed and authorized the procurement from an information and network security perspective. It was found that the bid from Streetlight Data Inc., with a pay-per use subscription, meets all the terms, conditions, specifications, and requirements. As per Section 8.10 (b), if the specifications of a competitive bid cannot be met by two or more suppliers; Committee and City Council must approval the award of a competitive bid greater than $100,000.

3.0 Financial Impact/Considerations

Funds are identified in the Transportation capital budget per the source of financing attached as Appendix A.

Conclusion

It is recommended that Streetlight Data Inc. be appointed the vendor to provide Transportation and Mobility Big Data in the amount of $168,935, including contingency, excluding HST.

The award of this assignment will provide access to the datasets required to enhance the transportation modelling for the Mobility Master Plan and project specific analysis for various initiatives. Access to this developing data source will provide London and its partners an opportunity to enhance our understanding of Londoner's movements as we plan for the future.

Submitted by:	**Doug MacRae, P. Eng., MPA, Director, Transportation and Mobility**
Recommended by:	**Kelly Scherr, P. Eng., MBA, FEC, Deputy City Manager, Environment and Infrastructure**

Attach: Appendix A – Source of Financing

c: Sarah Grady, Transportation Planning & Design
Jon Kostyniuk, Traffic Engineering
Fabio Rueda, Purchasing
Mobility Master Plan Internal Steering Committee

Appendix "A"

#22050
April 20, 2022
(Appoint Consulting Engineer)

Chair and Members
Civic Works Committee

RE: Appointment of Transportation and Mobility Big Data Provider - Irregular Result
(Subledger NT22RD01)
Capital Project TS1039 - Transportation Master Plan Update
Capital Project TS104219 - Transportation Master Plan Monitoring Program (2019-2023)
Streetlight Data Inc. - $168,935 (excluding HST)

Finance Supports Report on the Sources of Financing:

Finance Supports 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 Deputy City Manager, Environment and Infrastructure, the detailed source of financing is:

Estimated Expenditures	**Approved Budget**	**Committed To Date**	**This Submission**	**Balance for Future Work**
TS1039 - Transportation Master Plan Update				
Engineering	100,000	5,877	31,908	62,215
TS104219 - Transportation Master Plan Monitoring Program				
Engineering	140,000	0	140,000	0
Total Expenditures	$240,000	$5,877	$171,908	$62,215

Sources of Financing				
TS1039 - Transportation Master Plan Update				
Drawdown from City Services - Studies Reserve Fund (Development Charges) (Note 1)	100,000	5,877	31,908	62,215
TS104219 - Transportation Master Plan Monitoring Program				
Drawdown from City Services - Roads Reserve Fund (Development Charges) (Note 1)	140,000	0	140,000	0
Total Financing	$240,000	$5,877	$171,908	$62,215

Financial Note:	**TS1039**	**TS104219**	**Total**
Contract Price	$31,356	$137,579	$168,935
Add: HST @13%	4,076	17,885	21,961
Total Contract Price Including Taxes	35,432	155,464	190,896
Less: HST Rebate	-3,524	-15,464	-18,988
Net Contract Price	$31,908	$140,000	$171,908

Note 1: Development Charges have been utilized in accordance with the underlying legislation and the approved 2019 Development Charges Background Study and the 2021 Development Charges Background Study Update.

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**
Deputy City Manager, Environment and Infrastructure
Subject: **Adelaide WWTP Climate Change Resilience Class EA – Notice of Completion**
Date: **April 20, 2022**

Recommendation

That on the recommendation of Deputy City Manager, Environment and Infrastructure, the following actions **BE TAKEN** with respect to the Adelaide Wastewater Treatment Plant Climate Change Resilience Class Environmental Assessment – Notice of Completion:

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

(b) The Adelaide Wastewater Treatment Plant Climate Change Resilience Class Environmental Assessment report **BE PLACED** on public record for a 30-day review period.

Executive Summary

Purpose

The purpose of this report is to notify Council of the City of London's Adelaide Wastewater Treatment Plant (WWTP) Climate Change Resilience Class Environmental Assessment (EA) prior to posting for final public review and comment.

Context

The Adelaide WWTP is located in a flood prone area, and flooding in the Thames River is expected to increase in frequency and severity due to the effects of climate change. The Class EA was initiated to review options for protecting the facility from floods, considering technical, environmental, economic and social aspects, and then consulting with the public, stakeholders, and First Nations in order to select a preferred solution.

This project is to be funded in part through the government of Canada's Disaster Mitigation and Adaptation Fund. Public consultation is a requirement of both the funding program and of the Municipal Class Environmental Assessment process in Ontario.

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 by replacing aged and failing infrastructure with new materials and sizing new infrastructure to accommodate future development; and
    - Protect and enhance waterways, wetlands, and natural areas.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- Civic Works Committee – March 29, 2022 – Disaster Mitigation and Adaptation Fund – Contribution Agreement
- Civic Works Committee – March 2, 2021 –Greenway and Adelaide Wastewater Treatment Plants Climate Change Resiliency Class Environmental Assessment Consultant Award
- Civic Works Committee – August 11, 2020 – Climate Emergency Action Plan – Update

2.0 Discussion and Considerations

The City of London's Climate Emergency Action Plan addresses the City's responsibility to reduce greenhouse gas emissions and increase resilience in the face of climate change.

In December 2020, the City of London secured federal funding through the Disaster Mitigation and Adaptation Fund for upgrades to protect the Greenway and Adelaide WWTPs from flooding. Potential strategies include a flood barrier, a pumping station and other upgrades to protect these critical facilities during flood events. The federal funding will contribute 40% of the costs over the full project cycle, from public consultation through design and construction.

A separate Class EA was undertaken for each of the two plants to consider various flood mitigation alternatives and identify the preferred solution through technical studies and consultation with the public, First Nations, and stakeholders. This report details the process and recommendations for the Adelaide WWTP.

2.1 Class Environmental Assessment Process

The Municipal Engineers Association Municipal Class EA is an approved planning process for municipalities to follow to meet the requirements of the *Environmental Assessment Act*. The Class EA process allows for the consideration of alternative solutions to meet the problem/opportunity presented, as well as the review of the various impacts of these alternative solutions.

The City of London recognizes the importance of completing public consultation process in accordance with the Municipal Engineers Association Class EA process to ensure that informed decisions are made when planning, designing, and constructing important infrastructure in the City. An experienced consulting firm, Matrix Solutions Inc., was retained by the City to lead the consultation process.

The Adelaide WWTP Climate Change Resilience Class EA fulfills Schedule B of the Class EA process and satisfies the federal and provincial requirements for public consultation to allow the design and construction to proceed.

2.2 Evaluation of Alternatives

Four alternatives were identified as potential means to protect the Adelaide WWTP from flooding, including:

1) Construct a berm with raised entranceway to suit flood elevations,
2) Construct a berm and plan to use temporary measures to protect the lower elevation area of the entrance road,

3) Construct a berm around the full perimeter, including the adjacent parking lot,
4) Do Nothing.

Option 1, constructing a berm around the plant and raising the access road, was identified as the preferred solution. This protects the plant and ensures that it can still be accessed during a flood, which is necessary to safely maintain plant operation.

Any project that proposes the creation of flood protected areas must also consider the impacts that displacing that volume of water can have on areas upstream and downstream of the flood protection. This project involved extensive modelling of expected impacts and potential mitigation, which were presented to the Upper Thames River Conservation Authority (UTRCA). The analysis showed that the impacts are expected to be negligible in the context of the Thames River floodway, and any additional mitigation measures (e.g. cutting large depressions in adjacent park space to provide additional flood storage volume) would be costly and disruptive with little measurable benefit.

An essential component of any of the options that provide flood protection (options 1, 2 or 3) is the construction of an effluent pumping station. Because plant flows leave via gravity flow, when the Thames River is in a flooding condition, treated flows may not be able to leave the plant even if the flood waters are prevented from entering. This would effectively flood the plant from within. An effluent pumping station lifts flows above the level of the river, allowing treated wastewater to leave the plant and ensuring that full treatment capacity is protected and maintained.

Multiple scenarios were evaluated for potential effluent pumping arrangements. The primary difference between them involved how to handle high flows that exceed the treatment plant's capacity when the river is high. The recommended strategy is to maintain existing overflow and bypass routes, with the pumping station sized to handle all flows that are treated by the plant. This strategy avoids oversizing the effluent pumping station and makes best use of the existing infrastructure on site. Flow equalization, (i.e., storing high flows until the event subsides) can prevent some overflow and bypass activity from entering the environment, and is recommended to be examined as part of the detailed design.

Wastewater treatment plant projects consider several evaluation criteria:

- **Technical**: technically feasible and can be designed and constructed
- **Environmental**: improvements enhance climate change resiliency, and any environmental impacts to be mitigated
- **Financial**: costs to be planned, reviewed, and approved through current programs, budgets, as supplemented by federal and provincial funding
- **Jurisdictional/regulatory**: aligns with local, provincial, and federal plans, policies, programs, etc.
- **Social/cultural**: any construction and operational impacts to be mitigated to minimize impacts on communities/public, including odour and noise.

The preferred flood protection strategies at Adelaide WWTP address all of the above. While fulfilling the technical requirements, they also minimize the impact to the public by keeping the majority of construction within the plant site and the adjacent City works yard. While there will be some temporary impacts during construction, there are not expected to be any observable differences in plant operation from the perspective of neighbouring residents and park users.

An Environmental Impact Study was conducted as part of the Class EA. No major issues were identified with any of the alternatives presented outside of managing construction practices to minimize impacts. In general, the environment will benefit from ensuring that the plant can remain fully operational, even during a severe flood event.

No archaeological potential was identified in any areas selected for construction in the preferred alternatives.

2.3 Public Engagement and Consultation

A project website and Get Involved webpage were developed to allow for enhanced consultation during the ongoing COVID-19 pandemic. Two virtual Public Information Centres were held: the first on October 6, 2021; and the second on March 9, 2022. Recordings of each session were made available following the live presentation and question and answer period. A presentation was also made to the Environment, Ecological and Planning Advisory Committee (EEPAC) on February 17, 2022.

The following First Nations were consulted as part of this Class EA:

- Aamjiwnaang First Nation;
- Bkejwanong (Walpole Island);
- Caldwell First Nation;
- Chippewas of Kettle and Stony Point;
- Chippewas of the Thames First Nation;
- Oneida Nation of the Thames;
- Delaware Nation at Moraviantown (Eelūnaapèewii Lahkèewiit); and
- Munsee-Delaware Nation.

Letters were provided to each First Nation to accompany each of the project notices. The Class EA included the following First Nations engagement opportunities:

- Online virtual workshop with representatives of Chippewas of Kettle and Stony Point First Nation - Wednesday, March 23, 2022

3.0 Recommendations and Next Steps

The recommended option for flood protection of the Adelaide WWTP includes the construction of a flood protection berm, raising portions of the access road and constructing an effluent pumping station to discharge treated flows when river levels are elevated in the Thames River. The complete strategy is presented in the final draft of the Class EA report. The Notice of Completion and 30-day public review period will be advertised in the Londoner and the report will be made available on the Get Involved webpage during the public review period. Appendix ‘A’ to this report includes the Notice of Completion for the study as well as the Executive Summary of the report. Upon expiry of the public review period, any comments will be considered in the final report and addressed as possible. Detailed design of the recommended solution would begin in mid-2022, with construction planned for 2023-24.

Conclusion

The Adelaide Wastewater Treatment Plant Climate Change Resilience Class Environmental Assessment has been completed in accordance with the Municipal Class Environmental Assessment process and fulfills Schedule B. Staff recommend posting the final report for public review and comment.

Prepared by:	**Kirby Oudekerk, MPA, P.Eng.** **Division Manager, Wastewater Treatment Operations**
Submitted by:	**Shawna Chambers, P.Eng., DPA** **Acting Director, Water, Wastewater, and Stormwater**
Recommended by:	**Kelly Scherr, P.Eng., MBA, FEC** **Deputy City Manager, Environment and Infrastructure**

Appendix ‘A’ - Notice of Completion and Executive Summary

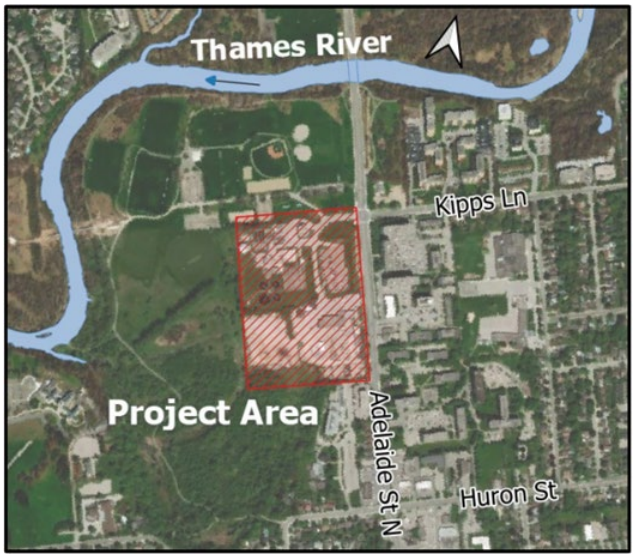
City of London
Notice of Completion

Adelaide Wastewater Treatment Plant
Climate Change Resiliency Class Environmental Assessment

PUBLIC NOTICE **May 2022**

Project

The City of London is concluding the Adelaide Wastewater Treatment Plant Climate Change Resiliency Class Environmental Assessment (EA). In April 2019, the City of London declared a climate emergency to deepen its commitment to protecting its economy, ecosystems, and communities from climate change. The purpose of this Class EA is to evaluate potential flood mitigation alternatives for improved climate change resiliency at the existing Adelaide Wastewater Treatment Plant, located at 1201 Adelaide Street North.



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 Adelaide Wastewater Treatment Plant. The Project File Report will be available online for review at https://getinvolved.london.ca/adelaide-climate-change.

Interested persons may provide written comments to our project team by June 29, 2022. All comments and concerns should be sent directly to Kirby Oudekerk at the City of London or to Stephen Braun at Matrix Solutions Inc.

In addition, a request may be made to the Ontario 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 EA); 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
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 Marcy McKillop and/or Stephen Braun 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 *Municipal Freedom of Information and Protection of Privacy Act* (MFIPPA) 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:

Kirby Oudekerk, MPA, P.Eng.
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Wastewater Treatment Operations
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London, ON N6J 2X5

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Stephen Braun, P.Eng.
Senior Water Resources Engineer
Matrix Solutions Inc.
3001-6865 Century Ave.
Mississauga, ON L5N 7K2

(289) 323-0975
sbraun@matrix-solutions.com

Under the *Municipal 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.

EXECUTIVE SUMMARY – CLASS ENVIRONMENTAL ASSESSMENT FOR THE ADELAIDE WASTEWATER TREATMENT PLANT CLIMATE CHANGE RESILIENCY

The City of London, consistent with its declaration of a climate emergency in 2019 and subsequent *Climate Emergency Action Plan* (London 2022), initiated a Municipal Class Environmental Assessment (EA) to assess and identify optimum flood mitigation strategies at the Adelaide Wastewater Treatment Plant (WWTP). The EA was completed to identify a preferred solution for increasing resilience to flooding at the WWTP. A previous climate change risk analysis completed for the WWTP indicated increased resilience to flooding was a top priority in addressing the effects of climate change. The EA was also undertaken with regard given to the *Climate Change Adaptation for Wastewater Treatment Plants* standard published by CSA Group (2018).

Significant portions of the Adelaide WWTP, located at 1201 Adelaide Street North, are within the regulatory floodplain of the nearby Thames River. Floodplain mapping completed by the Upper Thames Conservation Authority (UTRCA) indicates predicted flooding resulting from a 1 in 250-year regulatory flow event. Under these conditions large portions of the WWTP would be inundated, potentially resulting in substantial flood damage to existing infrastructure.

Early in the EA process, a long-list of potential flood mitigation options was developed and analyzed to determine a suitable mitigation strategy for the WWTP. Long-list options included conveyance improvements, site-level flood protection, diversion of flows, online storage, and WWTP operational measures. A hydraulic study examined the feasibility of each long-list option, and it was determined that site-level flood protection (berm/floodwall) offered the optimal balance of flood protection, construction effort, cost, and minimized disturbance. The results of the hydraulic study of long-list items were presented in a Public Information Centre (PIC) held online on October 6th, 2021, which also included an overview of the project, alternative site-level flood protection solutions, alternative effluent pump station options, and an invitation for public comment.

Following the first PIC, three different configurations of site-level flood protection solutions were analysed to determine the solution which best addressed the evaluation criteria. These criteria included the degree of flood protection provided, economic impact, environmental impact, and social impact. To predict the effects of different available solutions, several studies were completed including a hydraulic study, an environmental impact study (EIS), archaeological phase 1 study, and comprehensive analysis of flood-protection compatibility with existing infrastructure.

Each of the different site-level flood protection solutions examined at the Adelaide WWTP requires an effluent pump station to lift water from the plant into the Thames River when river levels are too high for gravity drainage. Since treated water, stormwater and emergency bypasses all leave the plant at different locations, it was important to evaluate options for effluent pumping. An opportunity was also identified to use the additional capacity of the existing raw pump station to convey bypasses directly to the receiving

water or into an equalization tank. Various effluent pump station options were evaluated according to criteria of technical, economic impact, environmental impact, and social impact.

The preferred new effluent pump option was determined to be a new equalization storage tank to the north, to capture wastewater when peak flow is higher than treatment capacity, and a new effluent pump station to lift treated water. This option was found to provide improved resiliency and protection for the environment and public from bypass events. It also uses the existing infrastructure at site to convey flow into the equalization tank and is compatible with future WWTP expansion needs.

A preferred integrated solution based on the preferred site-level protection and effluent pump station options will protect critical WWTP infrastructure and ensure treated effluent from the WWTP is lifted to the flooded Thames River during periods when the river is too high for gravity drainage. The new equalization tank to the north will reduce the likelihood of a bypass and allow the captured wastewater to be treated after a high flow event.

An evaluation of available site-level flood protection solutions and pump station solutions was presented at a second PIC held on March 9th, 2022. The PIC presented an overview of technical studies supporting the evaluation of alternative solutions, with a preliminary preferred solution of “Berm with Raised Entranceway” presented. This solution will also include the preferred new effluent pumping station option previously described. In summary, a berm is proposed within the existing fence-line of the plant, although some minor encroachments beyond the fence will be required in some places, including at the north of the site. A raised entrance roadway will be required to ensure continued flood protection, with it also providing safe access to the south during times of river flooding.

Resilience for potential climate change effects has been incorporated into the preferred solution in accordance with UTRCA recommendations regarding Thames River flood levels. Flood mitigation works will be implemented to protect against the 1 in 250-year flood level plus a freeboard allowance of 0.6 m. This additional height is intended to account for potential future effects of climate change and increased flood flows in the river.

From an ecological perspective, the EIS identified a number of natural heritage features adjacent to the WWTP, but no direct impact to natural features is predicted by implementation of the preferred solution. Indirect impacts can be reduced through mitigation strategies. The archaeological study identified no areas of archaeological potential within area required for implementing the integrated preferred solution for the Adelaide WWTP.

Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Kelly Scherr, P.Eng., MBA, FEC**
Deputy City Manager, Environment and Infrastructure
Subject: **Greenway WWTP Climate Change Resilience Class EA – Notice of Completion**
Date: **April 20, 2022**

Recommendation

That on the recommendation of Deputy City Manager, Environment and Infrastructure, the following actions **BE TAKEN** with respect to the Greenway Wastewater Treatment Plant Climate Change Resilience Class Environmental Assessment Notice of Completion:

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

(b) The Greenway Wastewater Treatment Plant Climate Change Resilience Class Environmental Assessment report **BE PLACED** on public record for a 30-day review period.

Executive Summary

Purpose

The purpose of this report is to notify Council of the City of London's Greenway Wastewater Treatment Plant (WWTP) Climate Change Resilience Class Environmental Assessment (EA) prior to posting for final public review and comment.

Context

The Greenway WWTP is located in a flood prone area, and flooding in the Thames River is expected to increase in frequency and severity due to the effects of climate change. The Class EA was initiated to review options for protecting the facility from floods, considering technical, environmental, economic and social aspects, and then consulting with the public, stakeholders and First Nations to select a preferred solution.

This project is to be funded in part through the Government of Canada's Disaster Mitigation and Adaptation Fund. Public consultation is a requirement of both the funding program and of the provincial government for works of this nature.

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 by replacing aged and failing infrastructure with new materials and sizing new infrastructure to accommodate future development; and
    - Protect and enhance waterways, wetlands, and natural areas.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- Civic Works Committee – March 29, 2022 – Disaster Mitigation and Adaptation Fund – Contribution Agreement
- Civic Works Committee – March 2, 2021: Greenway and Adelaide Wastewater Treatment Plants Climate Change Resiliency Class Environmental Assessment Consultant Award
- Civic Works Committee – August 11, 2020 – Climate Emergency Action Plan – Update.

2.0 Discussion and Considerations

The City of London's Climate Emergency Action Plan addresses the City's responsibility to reduce greenhouse gas emissions and increase resilience in the face of climate change.

In December 2020, the City of London secured federal funding through the Disaster Mitigation and Adaptation Fund for upgrades to protect the Greenway and Adelaide WWTPs from flooding. Potential strategies include a flood barrier, a pumping station and other upgrades to protect these critical facilities from flooding events. The federal funding will contribute 40% of the costs over the full project cycle, from public consultation through design and construction.

A separate Class EA was undertaken for each of the two plants to consider various flood mitigation alternatives and identify the preferred solution through technical studies and consultation with the public, First Nations, and stakeholders. This report details the process and recommendations related to the Greenway WWTP.

2.1 Class Environmental Assessment Process

The Municipal Engineers Association Municipal Class EA is an approved planning process for municipalities to follow to meet the requirements of the *Environmental Assessment Act*. The Class EA process allows for the consideration of alternative solutions to meet the problem/opportunity presented, as well as the review of the various impacts of these alternative solutions.

The City of London recognizes the importance of completing public consultation process in accordance with the Municipal Engineers Association Class EA to ensure that informed decisions are made when planning, designing and constructing important infrastructure in the City. An experienced consulting firm, Matrix Solutions Inc., was retained by the City to lead the consultation process.

The Greenway WWTP Climate Change Resilience Class EA fulfills Schedule B of the Class EA process and satisfies the federal and provincial requirements for public consultation to allow the design and construction to proceed.

2.2 Evaluation of Alternatives

Four alternatives were identified as potential means to protect the Greenway WWTP from flooding, including:

1) Construct a berm surrounding the entire plant to suit flood elevations
2) Construct a floodwall in more confined areas with a berm to protect the west side of the site

3) Construct a floodwall along a longer portion of the plant's property with a reduced berm length in the southwest
4) Do Nothing

Constructing a berm in those areas around the plant that can accommodate the increased footprint, coupled with the construction of floodwall in those areas with less space available, was identified as the preferred solution. Since Options 2 and 3 are similar, the detailed design process will confirm the preferred alignment of the berm and floodwall, all in consideration of more detailed environmental impacts and cost estimates.

Any project that proposes the creation of flood protected areas must also consider the impacts that displacing that volume of water can have on areas upstream and downstream of the flood protection. This project involved extensive modelling of expected impacts and potential mitigation, which were presented to the Upper Thames River Conservation Authority (UTRCA). The analysis showed that the impacts are expected to be negligible in the context of the Thames River floodway, and any additional mitigation measures (e.g., cutting large depressions in adjacent park space to provide additional flood storage volume) would be costly and disruptive with little measurable benefit.

An essential component of any of the options that provide flood protection (options 1, 2 or 3) is the construction of an effluent pumping station. Because plant flows leave via gravity flow, when the Thames River is in a flooding condition, treated flows may not be able to leave the plant even if the flood waters are prevented from entering. This would effectively flood the plant from within. An effluent pumping station lifts flows above the level of the river, allowing treated wastewater to leave the plant and ensuring that full treatment capacity is protected and maintained.

There is only one feasible location for the effluent pumping station at Greenway, and its capacity will be based on the treatment capacity of the plant. The design is projected to optimize use at the current plant capacity, but with allowances to simplify future expansions as plant flows increase.

Wastewater treatment plant projects consider several evaluation criteria:

- **Technical**: technically feasible and can be designed and constructed
- **Environmental**: improvements enhance climate change resiliency, and any environmental impacts to be mitigated
- **Financial**: costs to be planned, reviewed, and approved through current programs, budgets, as supplemented by federal and provincial funding
- **Jurisdictional/regulatory**: aligns with local, provincial, and federal plans, policies, programs, etc.
- **Social/cultural**: any construction and operational impacts to be mitigated to minimize impacts on communities/public, including odour and noise.

The preferred flood protection strategies at Greenway WWTP address all of the above. While fulfilling the technical requirements, they also minimize the impact to the public by keeping the majority of construction within the plant site and the adjacent City works yard. While there will be some temporary impacts during construction, there are not expected to be any observable differences in plant operation from the perspective of neighbouring residents and park users.

An Environmental Impact Study was conducted as part of the Class EA. No major issues were identified with any of the alternatives presented outside of managing construction practices to minimize impacts. In general, the environment will benefit from ensuring that the plant can remain fully operational during a severe flood event.

No archaeological potential was identified in any areas selected for construction in the preferred alternatives. Any previous areas of interest have either already been investigated or will not be disturbed.

2.3 Public Engagement and Consultation

A project website and Get Involved webpage were developed to allow for enhanced consultation during the ongoing COVID-19 pandemic. Two virtual Public Information Centres were held: the first on October 7, 2021; and the second on March 10, 2022. Recordings of each session were made available following the live presentation and question and answer period. A presentation was also made to the Environment, Ecological and Planning Advisory Committee (EEPAC) on February 17, 2022.

The following First Nations were consulted as part of this Class EA:

- Aamjiwnaang First Nation;
- Bkejwanong (Walpole Island);
- Caldwell First Nation;
- Chippewas of Kettle and Stony Point;
- Chippewas of the Thames First Nation;
- Oneida Nation of the Thames;
- Delaware Nation at Moraviantown (Eelūnaapèewii Lahkèewiit); and
- Munsee-Delaware Nation.

Letters were provided to each First Nation to accompany each of the project notices.

3.0 Recommendations and Next Steps

The recommended option for flood protection of the Greenway WWTP includes the construction of a combined berm and floodwall for flood protection and constructing an effluent pumping station to discharge treated flows when river levels are elevated in the Thames River. The complete strategy is presented in the final Class EA report. The Notice of Completion and 30-day public review period will be advertised in the Londoner and the report will be made available on the Get Involved webpage during the public review period. Appendix ‘A’ to this report includes the Notice of Completion for the study as well as the Executive Summary of the report. Upon expiry of the public review period, any comments will be considered in the final report and addressed as possible. Detailed design of the recommended solution would begin mid-2022, with construction planned for 2023-2025.

Conclusion

The Greenway Wastewater Treatment Plant Climate Change Resilience Class Environmental Assessment has been completed in accordance with the Municipal Class Environmental Assessment process and fulfills Schedule B. Staff recommend posting the final report for public review and comment.

Prepared by:	**Kirby Oudekerk, MPA, P.Eng.** **Division Manager, Wastewater Treatment Operations**
Submitted by:	**Shawna Chambers, P.Eng., DPA** **Acting Director, Water, Wastewater, and Stormwater**
Recommended by:	**Kelly Scherr, P.Eng., MBA, FEC** **Deputy City Manager, Environment and Infrastructure**

Appendix ‘A’ - Notice of Completion and Executive Summary

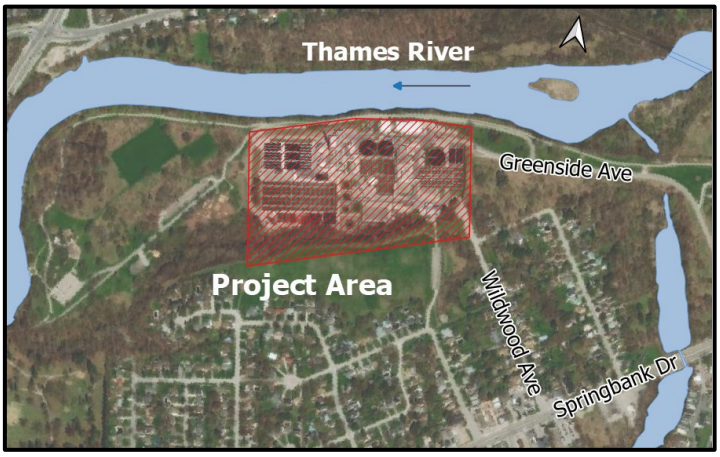
City of London
Notice of Completion

Greenway Wastewater Treatment Plant
Climate Change Resiliency Class Environmental Assessment

PUBLIC NOTICE **May 2022**

Project

The City of London is concluding the Greenway Wastewater Treatment Plant Climate Change Resiliency Class Environmental Assessment (EA). In April 2019, the City of London declared a climate emergency to deepen its commitment to protecting its economy, ecosystems, and communities from climate change. The purpose of this Class EA is to evaluate potential flood mitigation alternatives for improved climate change resiliency at the existing Greenway Wastewater Treatment Plant, located at 109 Greenside Avenue.



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 Greenway Wastewater Treatment Plant. The Project File Report will be available online for review at https://getinvolved.london.ca/greenway-climate-change.

Interested persons may provide written comments to our project team by June 29, 2022. All comments and concerns should be sent directly to Kirby Oudekerk at the City of London or to Stephen Braun at Matrix Solutions Inc.

In addition, a request may be made to the Ontario 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 EA); 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
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 Kirby Oudekerk and/or Stephen Braun 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 *Municipal Freedom of Information and Protection of Privacy Act* (MFIPPA) 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:

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109 Greenside Avenue
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(519) 661-2489 ext. 6232
koudeker@london.ca

Stephen Braun, P.Eng.
Senior Water Resources Engineer
Matrix Solutions Inc.
3001-6865 Century Ave.
Mississauga, ON L5N 7K2

(289) 323-0975
sbraun@matrix-solutions.com

Under the *Municipal 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.

EXECUTIVE SUMMARY – CLASS ENVIRONMENTAL ASSESSMENT FOR THE GREENWAY WASTEWATER TREATMENT PLANT CLIMATE CHANGE RESILIENCY

The City of London, consistent with its declaration of a climate emergency in 2019 and subsequent *Climate Emergency Action Plan* (London 2022), initiated a Municipal Class Environmental Assessment (EA) to assess and identify optimum flood mitigation strategies at the Greenway Wastewater Treatment Plant (WWTP). The EA was completed to identify a preferred solution for increasing resilience to flooding at the WWTP. A previous climate change risk analysis completed for the WWTP indicated increased resilience to flooding was a top priority in addressing the effects of climate change. The EA was also undertaken with regard given to the *Climate Change Adaptation for Wastewater Treatment Plants* standard published by CSA Group (2018).

Significant portions of the Greenway WWTP, located at 109 Greenside Avenue, are within the regulatory floodplain of the nearby Thames River. Floodplain mapping completed by the Upper Thames Conservation Authority (UTRCA) indicates predicted flooding resulting from a 1 in 250-year regulatory flow event. Under these conditions large portions of the WWTP would be inundated, potentially resulting in substantial flood damages to existing infrastructure.

Early in the EA process, a long-list of potential flood mitigation options was developed and analyzed to determine a suitable mitigation strategy for the WWTP. Long-list options included conveyance improvements, site-level flood protection, diversion of flows, online storage, and WWTP operational measures. A hydraulic study examined the feasibility of each long-list option, and it was determined that site-level flood protection (berm/floodwall) offered the optimal balance of flood protection, construction effort, cost, and minimized disturbance. The results of the hydraulic study of long-list items were presented in a Public Information Centre (PIC) held online on October 7th, 2021, which also included an overview of the project, alternative site-level flood protection solutions, and an invitation for public comment.

Following the first PIC, several different types and alternate configurations of site-level flood protection solutions were analysed to determine the solution which best addressed several criteria overall. These criteria included the degree of flood protection provided, economic impact, environmental impact, and social impact. To predict the effects of different available solutions, several studies were completed including a hydraulic study, an environmental impact study (EIS), archaeological Phase 1 study, and comprehensive analysis of flood-protection compatibility with existing infrastructure.

All the various site-level flood protection solutions examined included an effluent pumping station. This pumping station is needed to lift effluent from the WWTP to the flooded Thames River during the periods when the river level is too high for gravity drainage. The effluent pumping station was included as a key feature of all site-level flood protection solutions examined and will ensure the continued operation of the WWTP under high flood conditions.

An evaluation of available site-level flood protection solutions was presented at a second PIC that occurred March 10th, 2022. The PIC presented an overview of technical studies supporting the evaluation of alternative solutions, with the preliminary preferred solution of Blended Floodwall and Berm presented. This solution will also include a new effluent pumping station. In summary, the floodwall will be required where space is tight at the WWTP, including at the northern fence-line. Where space allows, including at the west fence-line and east of the site, a berm is proposed. Additionally, a portion of the entrance road east of the site will be raised to ensure flood protection.

Resilience for potential climate change effects has been incorporated into the preferred solution in accordance with UTRCA recommendations regarding Thames River flood levels. Flood mitigation works will be implemented to protect against the 1 in 250-year flood level plus a freeboard allowance of 0.6 m. This additional height is intended to account for potential future effects of climate change and increased flood flows.

From an ecological perspective, the Environmental Impact Study identified a number of natural heritage features adjacent to the WWTP, but direct impact to natural features due to implementation of the preferred solution is anticipated to be limited. Indirect impacts will be reduced through mitigation strategies. The Archaeological study has identified that areas within the WWTP generally offer limited archaeological potential, although some areas located east of the site will require Phase 2 study prior to implementing a berm.

Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Kelly Scherr, P. Eng., MBA, FEC, Deputy City Manager, Environment and Infrastructure**
Subject: **Construction Partnership with the County of Middlesex**
2022 Road Rehabilitation Program
Gideon Drive Rehabilitation
Date: **April 20, 2022**

Recommendation

That, on the recommendation of the Deputy City Manager, Environment & Infrastructure, the following actions **BE TAKEN** with respect to the rehabilitation of Gideon Drive:

(a) The City's $393,445.50 share of a County of Middlesex tender **BE APPROVED**, it being noted that the funding is included in an approved City budget and the method of purchase is in accordance with the Procurement of Goods and Services Policy, Clauses 14.4 g), h) and i), covering purchases with another public body;

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

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

Executive Summary

This report seeks formal approval from the Municipal Council to authorize the single source procurement process with the County of Middlesex for the rehabilitation of a section of Gideon Drive. Approximately 1.6 kilometres of Gideon Drive within the City boundary would be rehabilitated through a County of Middlesex contract. This partnership creates cost efficiencies for the City by accessing a larger contract to address a City infrastructure renewal need. Achieving economies of scale are particularly relevant for this work because the rehabilitation includes specialized asphalt recycling technology that benefits from long continuous road sections and has fixed mobilization costs. The City of London's contribution towards the project would be funded from the Transportation Capital Road Network Improvements budget.

Linkage to the Corporate Strategic Plan

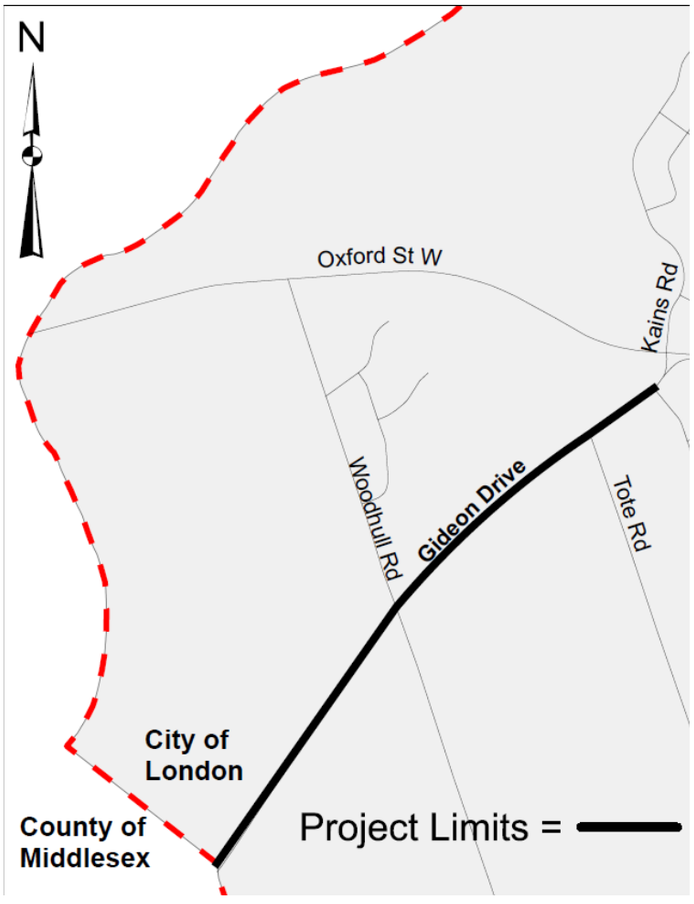
The following report supports the Strategic Plan through the strategic focus area of "Building a Sustainable City" by implementing and enhancing safe and convenient mobility choices for transit riders, automobile users, pedestrians, and cyclists.

Analysis

1.0 Discussion and Considerations

The County of Middlesex has plans to rehabilitate Gideon Drive west of the city limits, and they offered the chance to partner and continue resurfacing within the city limits. The section of road within the city limits is also due for renewal. The County has extended their limits to within 100m of the Oxford Street intersection or approximately 1.6 km within London (see Figure 1, below). The city is in the process of completing an environmental assessment for the introduction of a roundabout at this intersection in the coming years, and the future work will be coordinated with the limits of the resurfacing. As recommended in the City's Cycling Master Plan, Gideon Drive is identified as a designated cycling route and accordingly the resurfacing work will include the addition of paved shoulders to accommodate cyclists.

Figure 1 – Location Map



In the past, the City of London has partnered with the County of Middlesex on various boundary road construction projects. By incorporating a section of adjoining City road within the County's overall contract, the City can achieve the benefits of this work in a cost effective manner by being included as part of a larger Middlesex County contract. With the larger quantities and specialized process involved, both the City and the County can benefited with the lower unit prices and lower overall contract prices.

The County advertised the work through two tenders: (1) Cold-in-Place Asphalt Recycling, and (2) Supply of Hot Mix Asphalt. The tenders were closed by the County on February 16, 2022. Each tender received three bid submissions. The resurfacing of Gideon Drive will include work from both tenders.

2.0 Financial Impact/Considerations

Based on the County's proposed tender values to be awarded, the County provided an estimate for the City share at $393,445.50 (including contingency and excluding HST), noting that the pre-tender estimate for this work was $454,165 (excluding HST).

Civic Administration has reviewed the County of Middlesex tender prices and finds them to be in alignment with or lower than the City's typical anticipated contract unit rates obtained through competitive tendering.

There are no anticipated additional operating costs in the Transportation and Mobility budget in 2022 and subsequent years associated with the approval of this project.

Conclusion

It is recommended that the City of London Council approve the single source procurement process with the County of Middlesex in the amount of $393,445.50 for the Gideon Drive Rehabilitation coordinated with the County of Middlesex. The recommendation is in accordance with the Procurement of Goods and Services Policy, Clauses 14.4 g), h) and i) covering purchases with another public body.

The partnership with the County of Middlesex will create cost efficiencies while managing the Transportation Infrastructure Gap.

Prepared by:	**Garfield Dales, P.Eng., Division Manager, Transportation Planning and Design**
Submitted by:	**Doug MacRae, P. Eng., MPA, Director, Transportation and Mobility**
Recommended by:	**Kelly Scherr, P. Eng., MBA, FEC, Deputy City Manager, Environment and Infrastructure**

Appendix A – Sources of Financing Report

c: Ryan Hillinger, Middlesex County

Appendix "A"

#22046
April 20, 2022
(Award Contract)

Chair and Members
Civic Works Committee

RE: Construction Partnership with the County of Middlesex for Gideon Drive Rehabilitation
(Subledger RD220002)
Capital Project TS144620 -Road Networks Improvements
County of Middlesex - $393,445.50 (excluding HST)

Finance Supports Report on the Sources of Financing:

Finance Supports 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 recommendation of the Deputy City Manager, Environment and Infrastructure, the detailed source of financing is:

Estimated Expenditures	Approved Budget	Committed To Date	This Submission	Balance for Future Work
Engineering	1,003,555	993,470	0	10,085
Construction	8,625,512	7,309,065	400,371	916,077
City Related Expenses	39,235	39,235	0	0
Total Expenditures	$9,668,302	$8,341,770	$400,371	$926,162
Sources of Financing				
Canada Community-Building Fund	9,613,695	8,287,163	400,371	926,162
Other Contributions	54,607	54,607	0	0
Total Financing	$9,668,302	$8,341,770	$400,371	$926,162

Financial Note:

Contract Price	$393,446
Add: HST @13%	51,148
Total Contract Price Including Taxes	444,594
Less: HST Rebate	-44,223
Net Contract Price	$400,371

Jason Davies
Manager of Financial Planning & Policy

HB

Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Kelly Scherr, P.Eng., MBA, FEC**
Deputy City Manager, Environment and Infrastructure
Subject: **Unwanted Water: Addressing Overflows and Bypasses from London's Wastewater Collection and Treatment System**
Date: **April 20, 2022**

Recommendation

That on the recommendation of Deputy City Manager, Environment and Infrastructure, the following report on quantifying the impacts of the City's unwanted water issues **BE RECEIVED** for information.

Executive Summary

Purpose

The purpose of this report is to illustrate to Council the strategies that are being employed to reduce the occurrence of overflows and bypasses from City wastewater collection and treatment facilities. The scale of the rain events that occur will provide context for the magnitude of the infrastructure that would be required to prevent the occurrence of overflows and bypasses. This is the fourth report in the series focused on the problem of unwanted water in the City's wastewater system.

Context

The City's wastewater sewer system is intended to collect household sewage, commercial sewage, and industrial sewage. Wastewater flows from these sources are conveyed through a network of sewers to one of five wastewater treatment plants, sometimes via pumping stations. Each wastewater treatment plant treats the sewage which is then discharged as clean water to the Thames River. All other water, such as rainwater and groundwater, is not intended to enter the wastewater collection system. In the field of civil engineering, these unwanted sources of water are referred to as "inflow and infiltration." For the purposes of this report, the term "unwanted water" is used to describe any water that is not intended to be collected by the wastewater sewer system. Increased unwanted water in the collection system can cause overflows and bypasses of wastewater into the Thames River.

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 by replacing aged and failing infrastructure with new materials and sizing new infrastructure to accommodate future development; and
    - Protect and enhance waterways, wetlands, and natural areas.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- Civic Works Committee – December 14, 2021 – Quantifying Inflow and Infiltration in London's Wastewater Sewer System
- Civic Works Committee – September 21, 2021 – Sewage Overflows and Bypasses Into the Thames River – Sanitary Cross Connections
- Civic Works Committee – April 20, 2021 – Sewage Overflows and Bypasses Into the Thames River
- Civic Works Committee – April 17, 2018 – London Pollution Prevention and Control Plan - Final Master Plan

2.0 Discussion and Considerations

2.1 What are Overflows and Bypasses?

As has been described in previous reports, unwanted water (from sources like rain and groundwater) enters the sewage collection system via weeping tile connections, combined sewers, or during phases of construction build out. When unwanted water makes its way into the collection system, it can result in extremely high flow rate events that overwhelm the capacity of sewers, pumping stations, and wastewater treatment plants, causing overflows and bypasses. A "wet weather event" occurs when precipitation increases unwanted water in the system.

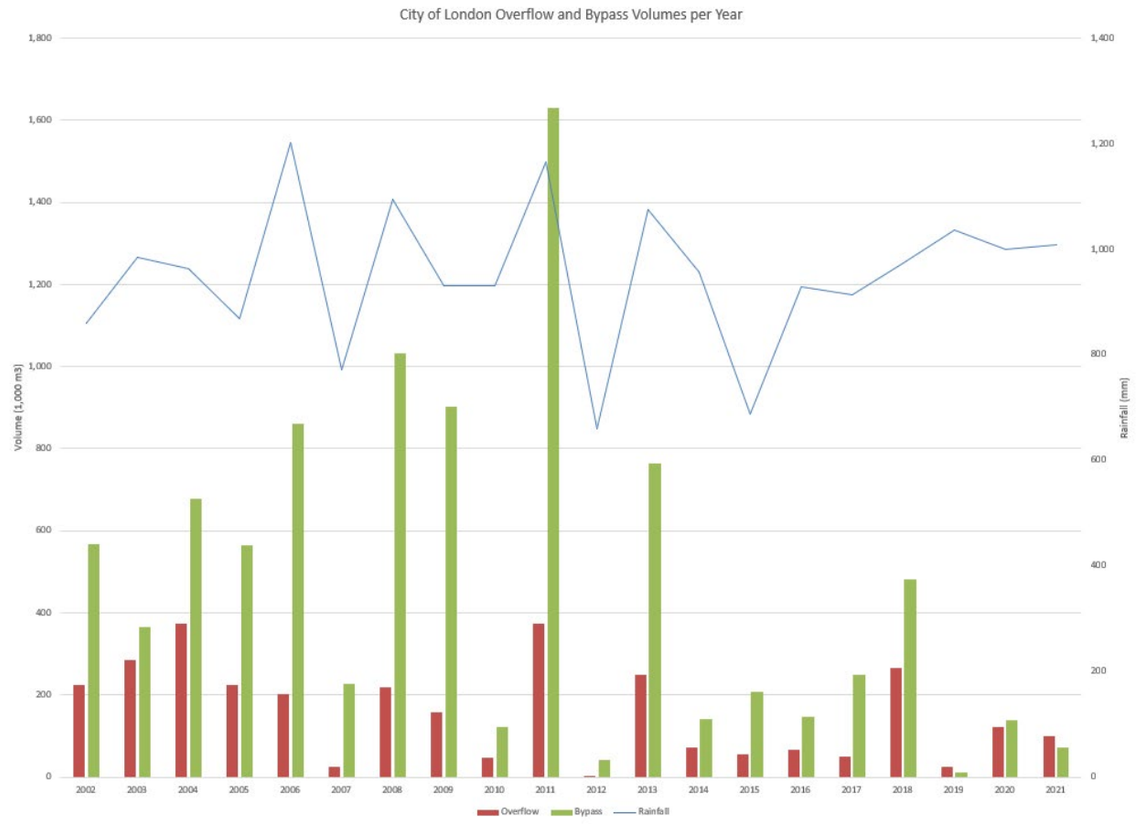
Overflows and bypasses occur during significant rain or snowmelt events (sometimes referred to as "wet weather events") when the wastewater in the collection system receives the greatest amount of unwanted water. In these cases, the flow of wastewater can exceed the capacity of the City's infrastructure to convey or fully treat it. At treatment plants and pumping stations, overflows and bypasses are managed as a last resort to protect public health and prevent property damage. In the sewer system, overflows can also occur throughout the system to protect properties from basement flooding.

It is important to understand the distinction between overflows and bypasses. An overflow is the release of untreated wastewater from either the collection system (i.e., sewers and pumping stations) or a wastewater treatment plant. Bypasses, on the other hand, receive partial treatment and are released from a wastewater treatment plant without having received the full treatment process. In some cases, bypasses are fully treated, but these instances are not the focus of this report.

In setting policy and operational practices for management of wet weather flows, the Wastewater Treatment Operations Division prioritizes the reduction of overflows since those flows receive no treatment prior to release whereas bypasses do receive partial treatment.

2.2 How much does the City Overflow and Bypass?

Overflows and bypasses are publicly reported events. The following graph illustrates the annual overflow and bypass volumes at the City's pumping stations and treatment plants since 2002. The graph shows that following a peak in 2011, overflow and bypass volumes overall have decreased substantially.



It is important to note that when assessing the impact of unwanted water on the City's wastewater infrastructure, the intensity of a given rainfall or snowmelt event is more influential than the annual amount of rainfall. A wetter than average year, in which most precipitation is delivered in frequent, low intensity weather events, could result in fewer overflows and bypasses. By contrast, one significant rain event could trigger the entire annual overflow or bypass volume for the year. This is illustrated in the graph above as no discernible relationship between annual rainfall and overflow or bypass activity is apparent.

Because bypasses and overflows are directly related to the characteristics of a given rain event and ground conditions, it is difficult to predict how active a particular year is going to be for overflows and bypasses or to correlate performance across years by comparing annual precipitation levels. Unfortunately, the expectation is that climate change will likely increase the percentage of rain that falls as part of intense storm events, increasing the likelihood of overflows and bypasses.

2.3 What would it take to prevent all Overflows and Bypasses?

The unpredictable nature of wet weather flow events makes the capture and treatment of all possible flows impractical. Previous reports have described the need to remove the sources of unwanted water. There are also options to improve the feasibility of capture and treatment, particularly when used in conjunction with preventative measures.

Increasing the capacity of treatment plants to treat all flows received is often discussed, however, there are two primary obstacles to this approach. First, properly functioning treatment plants require finely balanced biological processes that are developed over time and require certain amounts of nutrients to remain active. By constructing facilities that are large enough to treat the largest events (representing only a fraction of a percent of the total flows received), plants are oversized to the point where they are no longer as effective at treating daily flows. Overall, this represents a poorer outcome for the environment in the long run. Second, the cost to construct treatment facilities large enough to fully treat all peak flows is in the hundreds of millions of dollars, making it cost prohibitive.

Another strategy to eliminate overflows and bypasses is to construct storage tanks at all major overflow and bypass locations that are capable of capturing and holding wet weather flows. This storage would be utilized until conditions in the collection system permit a gradual release back into the system for conveyance and treatment. This general approach is feasible and will be discussed further in the next section. However, to construct storage facilities at all overflow and bypass locations to capture and hold all possible flow volumes received becomes cost-prohibitive. There may also be technical constraints including space limitations, infrastructure conflicts, slope stability, etc. For example, to capture and store the biggest events at Greenway Wastewater Treatment Plant would require a total volume of 175,000 m^3. That is the equivalent of 70 Olympic swimming pools or 26 tanks, each 23 meters in diameter by 15 meters tall, spread over an area of two CFL-sized football fields. Cost projections for construction of a complete-capture wet weather storage solution could reach into the hundreds of millions of dollars and would require significant property acquisition, including a significant loss of existing park space.

Despite the fact that designing a treatment plant or storage tank system to capture 100% of wet weather flows is impractical, there are elements of these strategies that are carried forward into the City's current practices and plans for future improvements. Removing as many sources of unwanted water as possible, such as weeping tile connections, combined sewers, and infiltration, reduces the volume that requires capture and treatment and increases the economical feasibility of these larger capital projects for capturing remaining flows.

2.4 What is the City doing to prevent Overflows and Bypasses?

While Sewer Engineering is undertaking initiatives to remove sources of unwanted water from the collection system, Wastewater Treatment Operations manages the flows they receive and sets the reduction of overflows and bypasses at treatment plants and pumping stations as a priority. The decision to overflow or bypass is made only as a last resort to protect public health and property.

As previously identified, the priority is placed on reducing overflow activity since those events are untreated flows that enter the river. Given the challenges detailed above with enabling full treatment of all flows received, the strategy that is employed involves implementing high-rate primary level treatment to flows prior to being released into the environment. Primary level treatment removes a significant portion of the solids and biological content, reducing the nutrient load that is introduced to the Thames River. Primary treatment can also be stopped and started as required, making it suitable for intermittent duty in comparison to treatment facilities that do not have this flexibility.

Storage of flows, whether untreated or partially treated, prior to diverting to the environment provides an effective way of reducing the impacts of wet weather events on the environment. By capturing and retaining flows that cannot be fully treated, the volume of overflow and bypass events is directly reduced and the retained flows can be reintroduced to the plants when capacity is available to fully treat them. The biggest challenge associated with storage solutions is space. As a result, storage facilities are typically sized according to the space available rather than by a specific retention volume.

Key locations where the City has constructed storage and primary treatment capability are described in the following list. Typically, the full capacity of each location is leveraged before any overflows occur, except in those most extreme rain events:

- Greenway Wastewater Treatment Plant – 7,800 m^3 of storage, 170,000 m^3/d additional primary treatment capacity in wet weather;
- Vauxhall Wastewater Treatment Plant – 165,000 m^3/d additional primary treatment capacity in wet weather;
- Dingman Creek Pumping Station – 67,000 m^3 of storage, 80,000 m^3/d primary treatment capacity in wet weather;

To illustrate the role that these facilities can play in reducing raw overflows, in 2021 there was a total of 197,866 m^3 of wastewater that exceeded the capacity of the City's pumping stations and plants and would have been an overflow but still received at least primary treatment before being discharged to the Thames River. This compares with the total 64,921 m^3 of raw overflow that occurred, representing a 75% reduction in overflow volume.

The City is currently reviewing more opportunities to construct new storage and enhanced primary treatment facilities to further improve this performance. Many of those projects are identified in the recently completed Wastewater Treatment Operations Master Plan, which can be reviewed at https://getinvolved.london.ca/wastewater-master-plan.

3.0 Financial Impact/Considerations

The Wastewater Treatment Operations Division is currently undertaking many upgrade projects. Whenever possible, the incorporation of wet weather management strategies is considered as part of capital projects. However, in general, most proposed wet weather management strategies are currently unfunded. As identified, the cost to construct overflow and bypass reducing infrastructure could reach into the hundreds of millions of dollars, plus property acquisition. While smaller upgrades will be made under existing capital budgets, additional funding will be required and will be requested during the next multi-year budget process to further reduce overflows and bypasses. The City will also continue to apply to senior government funding grants when available to support funding initiatives.

Conclusion

Overflows and bypasses generate significant concern in the community. The infrastructure required to mitigate and reduce overflow and bypass events via capture and treatment is not simple to build or operate, and the costs are substantial.

Wastewater Treatment Operations manages overflows and bypasses as a last resort for the protection of the public. In conjunction with initiatives to remove sources of unwanted water, capital projects are in progress and more are planned to construct facilities that will further reduce the volume of untreated flow that is released from the City's wastewater collection and treatment facilities. Further action to achieve even greater reductions will be proposed to Council during the next budget cycle.

Prepared by:	**Kirby Oudekerk, MPA, P.Eng.** **Division Manager, Wastewater Treatment Operations**
Submitted by:	**Shawna Chambers, P.Eng., DPA** **Acting Director, Water, Wastewater and Stormwater**
Recommended by:	**Kelly Scherr, P. Eng., MBA, FEC** **Deputy City Manager, Environmental and Infrastructure**

Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Kelly Scherr, P.Eng., MBA, FEC**
Deputy City Manager, Environment and Infrastructure
Subject: **Contract Award: Tender RFT21-121**
Greenway UV Upgrade Construction – Irregular Result
Date: **April 20, 2022**

Recommendation

That on the recommendation of the Deputy City Manager, Environment and Infrastructure, the following actions **BE TAKEN** with respect to the award of the construction contract for upgrades to the UV disinfection system at the Greenway Wastewater Treatment Plant:

(a) the bid submitted by Kingdom Construction Limited at its tendered price of $3,372,250.00, excluding HST, for upgrades to the UV disinfection system at Greenway Wastewater Treatment Plant, **BE ACCEPTED** in accordance with Section 19.3 (a) of the City of London's Procurement of Goods and Services Policy, it being noted that the bid submitted by Kingdom Construction Limited was the only bid received in response to RFT21-121;

(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 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, or issuing a purchase order for the material to be supplied and the work to be done, relating to this project (RFT21-121); 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 award of a tender to a contractor for the construction of new channels and the installation of new UV equipment at the Greenway Wastewater Treatment Plant.

Context

Greenway is the City's largest wastewater treatment plant. The existing UV disinfection system is at the end of its useful life and is no longer supported by the manufacturer. Replacement equipment was pre-purchased. This contract is to construct new infrastructure to house the new equipment and install it. Despite tendering this work twice, only a single bidder submitted a tender in response to RFT 21-121.

Linkage to the Corporate Strategic Plan

The following report supports the Strategic Plan in the following areas:

- 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 – April 20, 2021 – Greenway Wastewater Treatment Plant UV Disinfection Equipment Single Source

2.0 Discussion and Considerations

2.1 Project Description

Greenway Wastewater Treatment Plant is the City's largest plant, treating approximately 60% of all the wastewater generated in the City. An important part of the treatment process is to disinfect the plant's treated effluent prior to discharging to the Thames River. This is accomplished using ultraviolet (UV) radiation.

The current UV disinfection system at Greenway was installed in 1998. It replaced the previous chlorine disinfection system. That disinfection system, installed almost 24 years ago, has exceeded its life expectancy and requires replacement. Civic Administration previously reported to Council and obtained approval to purchase a new UV disinfection system from Trojan Technologies, but a contract is required in order to remove the existing UV system and install the new system.

Accordingly, a request for tender was issued that included the following scope:

- Construct a new UV disinfection channel,
- Complete installation of new UV disinfection system, including mechanical and electrical connections, and,
- Remove existing disinfection equipment.

2.2 Procurement Process

A Request for Tender (RFT 21-104) closed on November 10, 2021. At that time only a single bid was received. Due to perceived challenges that may have limited the response to the RFT, it was decided that the project would be re-tendered with longer timelines, thereby reducing risk to the contractor and improving response.

As a result, RFT 21-121 was issued with a completion date extended to the end of 2022. That tender closed on March 11, 2022, again with a single bidder. Unfortunately, there are no longer any design or schedule modifications that can be made. In addition, this work is required to be completed in advance of April 2023, so there is insufficient time available for a third tender process. As a result, it was decided to open the single bid in accordance with Section 19.4 (b).

3.0 Financial Impact/Considerations

3.1 Tender Summary

The singe tender bid received in response to RFT 21-121 for the UV Upgrades at Greenway WWTP was opened on March 15, 2022. The tender price was as follows, excluding HST.

Table 1: Summary of submitted tender prices

Contractor	Tender Price Submitted
Kingdom Construction Limited	$3,372,250.00

The tendered price includes a contingency allowance of $200,000. The tender was checked by the Wastewater Treatment Operations Division and AECOM. No errors were found, nor did the bid submission contain unbalanced item prices which would negatively affect the City. The submitted price substantially exceeds the City's pre-tender estimate of $2.2 million. However, the impacts of COVID and conflict in Europe, coupled with a high availability of contracts for tender in the region, are expected to be driving higher commodity prices and lower bid competition respectively. As a result, it is not expected that re-tendering the work a third time would result in a significant cost saving. The delays associated with such a process would also place the City at risk of failing to meet treatment compliance limits through the 2023 season. Therefore, the regulatory obligation of the City prioritizes this project over other work. Funding is available in the approved wastewater treatment capital budget per the source of financing attached as appendix 'A'. Future projects planned under this capital budget will be adjusted in timing and scope to accommodate the increased cost of this project.

Conclusion

Civic Administration has reviewed the single tender bid received in response to RFT 21-121. While the price that was submitted is high, the work needs to be completed and the likelihood of obtaining better pricing through a third tender is low. Administration therefore recommends Kingdom Construction Limited be awarded the contract for the UV Upgrades at Greenway Wastewater Treatment Plant at the submitted tender price of $3,372,250.00 (excluding HST).

Prepared by:	**Kirby Oudekerk, MPA, P.Eng., Division Manager, Wastewater Treatment Operations**
Submitted by:	**Shawna Chambers, P.Eng., DPA Acting Director, Water, Wastewater and Stormwater**
Recommended by:	**Kelly Scherr, P.Eng., MBA, FEC, Deputy City Manager, Environment and Infrastructure**

CC: J. Freeman, S. Mollon

Appendix 'A' – Sources of Financing report

Appendix "A"

#22055
April 20, 2022
(Contract Award)

Chair and Members
Civic Works Committee

RE: RFT21-121 Greenway UV Upgrade Construction - Irregular Result
(Subledger FS21GW02)
Capital Project ES3098 - Greenway WWTP Capacity Improvements for Bypass Reduction & Flood Protection
Kingdom Construction Limited - $3,372,250.00 (excluding HST)

Finance Supports Report on the Sources of Financing:
Finance Supports 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 Deputy City Manager, Environment and Infrastructure, the detailed source of financing is:

Estimated Expenditures	**Approved Budget**	**Committed To Date**	**This Submission**	**Balance for Future Work**
Engineering	1,150,000	338,443	0	811,557
Construction	8,270,466	2,105,628	3,431,602	2,733,236
Vehicles and Equipment	1,362,994	1,362,994	0	0
City Related Expenses	100,000	8,861	0	91,139
Total Expenditures	$10,883,460	$3,815,926	$3,431,602	$3,635,932
Sources of Financing				
Drawdown from Sewage Works Renewal Reserve Fund	10,883,460	3,815,926	3,431,602	3,635,932
Total Financing	$10,883,460	$3,815,926	$3,431,602	$3,635,932

Financial Note:

Contract Price	3,372,250
Add: HST @13%	438,393
Total Contract Price Including Taxes	3,810,643
Less: HST Rebate	-379,041
Net Contract Price	$3,431,602

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**
Deputy City Manager, Environment and Infrastructure
Subject: **Single Source Appointment of Services for the Dingman Creek Surface Water Monitoring Program**
Date: **April 20, 2022**

Recommendation

That on the recommendation of Deputy City Manager, Environment and Infrastructure, the following actions **BE TAKEN** with respect to the appointment of Upper Thames River Conservation Authority (UTRCA) for the Surface Water Monitoring of the Dingman Creek Subwatershed:

(a) UTRCA **BE APPOINTED** to complete the 2022 Dingman Creek Surface Monitoring Program in accordance with the estimate, on file, at an upset amount of $ 188,005.83 (including 10% contingency), excluding HST, in accordance with Section 14.4 (d) & (e) 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 appointment of UTRCA to complete the Dingman Creek subwatershed 2022 annual surface monitoring program. This program includes water quantity, water quality, and biological monitoring programs in continuation of existing and historical monitoring programs. Data obtained by this program is used to calibrate floodplain modeling, assess overall stream health, and identify opportunities for stormwater management improvements.

Context

The Dingman Creek subwatershed is anticipated to undergo significant urban development in the next 5-10 years and is the current focus of an on-going Environmental Assessment and floodplain mapping update.

In 2018, the City awarded UTRCA a three-year subwatershed pilot monitoring program while the Dingman Creek Phase 1 Environmental Assessment was underway. The benefits of the pilot included streamlining surface water monitoring data collection, data sharing, and reporting between the City and UTRCA as well as expanding the number of flow gauge stations to aid in the floodplain update. This pilot project has successfully achieved its goals and the City would like to continue with the annual program. A one-year program is recommended as it is anticipated later this year the Ministry of Environment, Conservation and Parks will be issuing new stormwater management surface water monitoring guidance which may impact future Dingman Creek monitoring programs.

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 by replacing aged and failing infrastructure with new materials and sizing new infrastructure to accommodate future development;
    - London has a strong and healthy environment by incorporating stormwater management quantity and quantity controls to protect downstream waterways.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- Civic Works Committee (CWC) – March 18, 2019 – Appointment of Services for Dingman Creek Surface Water Monitoring Program (ES2452);
- CWC – June 22, 2021 – Appointment of Consulting Engineer for the Dingman Creek Subwatershed Stage 2 Lands; Schedule C Municipal Class Environmental Assessment
- Planning and Environment Committee —November 12, 2018 — Upper Thames River Conservation Authority Dingman Creek Subwatershed Screening Area Mapping
- CWC — October 6, 2015 — Dingman Creek Subwatershed Stormwater Servicing Strategy Schedule C Municipal Class Environmental Assessment

2.0 Discussion and Considerations

The Dingman Creek subwatershed is the largest within the City of London and generally located in the southern portion of the City. This subwatershed covers a total area of 17,200 hectares and 74% of the subwatershed is within city limits.

Before 2018, surface water monitoring programs for the Dingman Creek subwatershed were conducted by various consultants and City staff, in addition UTRCA completing their own monitoring separate from the City works. Benefits of the collaborative pilot project approach have included long-term consistency in data collection personnel and methods, reduction in data collection duplication, and digital data archiving through UTRCA's existing Western Ontario Environmental Database (WOED) accessible to both parties.

2.1 Work Description

This one-year Dingman Creek surface water monitoring program includes:

a) Continuous flow and water level monitoring data at four existing permanent stations in the Dingman Creek subwatershed to calibrate future floodplain and stormwater modeling conditions.

b) Collection of Dingman Creek monitoring data to build upon the existing historical datasets of water chemistry data and biologic data (including aquatic invertebrate and fisheries data);

c) Compiling data into a single database that can be shared, accessed, and utilized by both UTRCA and the City; and,

d) An annual Dingman Creek Subwatershed Surface Monitoring Report. This annual report will be updated at regular intervals to consider overall trends of the Dingman Creek system.

3.0 Financial Impact/Considerations

3.1 Procurement Process

The selection procedure for the assignment utilized a non-competitive procurement process and is in accordance with Section Section 14.4 (d) & (e) of the Procurement of Goods and Services Policy. This one-year program is an extension of services previously provided by the UTRCA.

The UTRCA have experience and knowledgeable staff trained in performing surface water monitoring tasks as part of their day-to-day activities. These staff are well versed in the Dingman Creek monitoring program, surface water monitoring protocols and have a vested interest in ensuring consistency and reliability in data collection. Additionally, UTRCA owns and operates specialized equipment and software licenses such as the existing continuous water flow monitoring network and Water Information Systems by KISTERS (WISKI), which support the overall long-term monitoring program.

Conclusion

The proposed team at UTRCA has experience in consistently delivering the Dingman Creek subwatershed monitoring program and is well-qualified to deliver an annual monitoring report. Based on the review of the submitted work plan, it is recommended that retaining UTRCA is in the best financial and technical interests of the City. It is recommended that UTRCA be awarded this assignment.

Prepared by:	**Jeff Hachey, M.Sc.E., P.Eng.** **Acting Division Manager, Stormwater Engineering**
Submitted by:	**Shawna Chambers, P.Eng., DPA** **Acting Director, Water, Wastewater and Stormwater**
Recommended by:	**Kelly Scherr, P.Eng., MBA, FEC, Deputy City Manager, Environment and Infrastructure**

CC:

John Freeman
Gary MacDonald
Alan Dunbar
Jason Davies
Steve Mollon
Adrienne Sones
Michelle Fletcher, UTRCA

Appendix ‘A’ – Sources of Financing

Appendix "A"

#22056
April 20, 2022
(Appointment of Services)

Chair and Members
Civic Works Committee

RE: Single Source Appointment of Services for the Dingman Creek Surface Water Monitoring Program
(Subledger NT22ES04)
Capital Project ES543519 - Subwatershed Impact Monitoring (2019-2023)
UTRCA - $188,005.83 (excluding HST)

Finance Supports Report on the Sources of Financing:

Finance Supports 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 Deputy City Manager, Environment and Infrastructure, the detailed source of financing is:

Estimated Expenditures	Approved Budget	Committed To Date	This Submission	Balance for Future Work
Engineering	1,012,038	29,313	191,315	791,410
Construction	6,106	6,106	0	0
Total Expenditures	$1,018,144	$35,419	$191,315	$791,410
Sources of Financing				
Drawdown from City Services - Stormwater Reserve Fund (Development Charges) (Note 1)	1,018,144	35,419	191,315	791,410
Total Financing	$1,018,144	$35,419	$191,315	$791,410

Financial Note:

Contract Price	188,006
Add: HST @13%	24,441
Total Contract Price Including Taxes	212,447
Less: HST Rebate	-21,132
Net Contract Price	$191,315

Note 1: Development Charges have been utilized in accordance with the underlying legislation and the approved 2019 Development Charges Background Study and the 2021 Development Charges Background Study Update.

Jason Davies
Manager of Financial Planning & Policy

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Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Kelly Scherr, P.Eng., MBA, FEC**
Deputy City Manager, Environment & Infrastructure
Subject: **SS-2022-106 Supply and Delivery of Traffic Paint**
Date: **April 20, 2022**

Recommendation

That, on the recommendation of the Deputy City Manager, Environment and Infrastructure, the following actions **BE TAKEN** with respect to the supply and delivery of traffic paint:

a) That approval hereby **BE GIVEN** to enter a two (2) year contract for the supply and delivery of traffic paint to Ennis Paint Canada ULC, at the quoted price of $177,092 per year; it being noted that the pricing was provided through participation in the Elgin/Middlesex/Oxford Purchasing Co-Operative (EMOP) and is therefore a single source purchase as per section 14.4 g) 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) That Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with these contracts;

c) Approval hereby given **BE CONDITIONAL** upon the Corporation negotiating satisfactory prices, terms and conditions with Ennis Paint Canada ULC to the satisfaction of the Manager of Purchasing and Supply and the Deputy City Manager, Environment & Infrastructure; and,

d) Approval hereby given **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.

Analysis

1.0 Background Information

1.1 Purpose

The City of London has a Line Painting truck that is used to refresh long linear pavement markings as part of an annual program. Crews are also responsible for intersection line markings and all other associated line markings.

The purpose of this report is to approve entry into a contract for the supply of paint for the annual Transportation & Mobility pavement marking program. Middlesex County completed the tender on behalf of the Elgin/Middlesex/Oxford Purchasing Cooperative (EMOP). Purchasing these types of common materials through EMOP has been a longstanding practice that has provided competitive pricing and economy of scale.

1.2 Previous Reports Related to this Matter

Civic Works Committee – April 20, 2021 – Supply and Delivery of Traffic Paint SS21-17

2.0 Discussion and Considerations

2.1 Background

The City of London's Road Operations team maintains pavement marking 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.

Ennis Paint was awarded the Supply and Delivery of Traffic paint three-year contract in 2021. Unfortunately, due to supply chain issues and increased costs, Ennis Paint opted out of the current paint contract after one year which is permitted in the EMOP agreement with sufficient notification.

2.2 Purchasing Process

A competitive bidding process was initiated to re-establish the supply contract. The process was managed by the Elgin Middlesex Oxford Purchasing Cooperative (EMOP) with The County of Middlesex as the calling agency. Ennis Paint Canada ULC was the sole bidder for the supply and delivery of traffic paint. The submission met the City's terms and conditions in all areas. The bid price is a 41% annual increase over the previous contract.

The Province of Ontario, the City of London and 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 benefits from the costs achieved via the larger quantity EMOP tender. 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".
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3.0 Financial Impact/Considerations

3.1 Funding

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

The total annual expenditure in 2021 for the supply and delivery of traffic paint was approximately $123,562 (excluding HST). With the new tender cost 41% higher than previous, the forecasted 2022 and 2023 expenditures are expected to be approximately $177,092 and $186,880 respectively, based on normal operating conditions as follows:

Annual Estimate	**Ennis Paint Submission**
2022 Traffic Paint Total	$177,092
2023 Traffic Paint Total	$186,880
Total	**$363,972**

The results of this tender reflect current trends in supply chain disruption and cost escalation for a variety of materials used in operating and capital programs.

Conclusion

Maintenance of pavement markings is an important component of transportation infrastructure management. Participation in the EMOP purchasing cooperative provides cost efficiency for the partners. Civic Administration has reviewed the results of the tender bid through the use of the EMOP process and recommends Ennis Paint Canada ULC as the supplier.

The results of this tender represent a significant increase in the cost of this material due to supply chain constraints and increased material costs. The impact to the Transportation & Mobility annual program will be managed within the current budget allocation. Rapid inflation in material costs associated with infrastructure management will be monitored and will inform the next multi-year budget process.

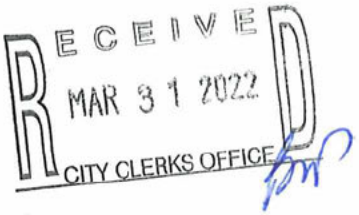
Prepared by: **John Parsons, C.E.T.**
Division Manager, Road Operations

Submitted by: **Doug MacRae, P.Eng., MPA**
Director, Transportation & Mobility

Recommended by: **Kelly Scherr, P.Eng., MBA, FEC,**
Deputy City Manager, Environment & Infrastructure

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

To City council / CIVIC WORKS.



We are submitting this petition with the aim of getting the speed reduced on the main street of our neighborhood.

As some of you already know, our once quiet and peaceful area has been hit with terrible odor that we have had to live with for nearly 15 years. Now we have been experiencing some new issues. One issue is two new trucking companies have moved into the area. One company is Speedy Transport on Castleton road, the other is Charger Transport on Dingman Drive. Speedy Transport located on Castleton road, has been having their trucks enter off of Dingman drive resulting in the hydro pole being wiped out about 4 times in the last three years. This is because the corner of Dingman and Castleton was not designed to accommodate tractor trailers, and especially not the length of ones that attempt to bypass traffic by using our road. Since the influx of tractor trailers, Castleton road's pavement is being destroyed. There are such enormous ruts, pot holes, and cracks along the road that it makes it difficult to safely walk or ride a bike down the road. This should be addressed as it is only causing an unnecessary increase in our tax dollars to pay for the repairs that have yet to be done. As for Charger Transport on Dingman. This company has morphed into a visual eyesore. They use old beat-up trailers to mark a perimeter, and have clear cut nearly all of the once mature trees that kept the sound and dust located to the property relatively well, including a bush lot which they did not have a permit to remove. We are worried that they plan on using this newly cleared space to expand their parking allowing for more trailers in an already full space. Although this company has worked fairly well with neighbors, we can see the slow erosion of their property that was once fronted by houses and lined with trees when Proctor Brothers trucking owned the property. The next step we worry about, and anticipate in the near future, is the removal of the last house on the property. We hope this will be stopped by some form of city intervention.

To our concern about speed. We have a very nice community driven hamlet, in the annexed area on Dingman drive known as Brockley, which dates back to the 1800s. We are a small community with no real city amenities other than water on our street. We have NO bus, no full natural gas service, no cable, no internet, poorly marked street painting and properly groomed shoulders on the road.

Our shoulder width ranges from 16 inches to 24 inches, which is far from enough room to safely walk on it. Since the city has been ever expanding, we have been noticing a very high volume of traffic from vehicles to transport trucks. 90 percent of which, are speeding. I was informed of this by an officer doing speed enforcement in our area this past summer.

This street is also used by many cyclist to commute. We also have a family with an autistic young man and service dog, when trying to enjoy the peaceful neighborhood they moved into more than 20 years ago, the shoulder does not accommodate two people and a dog safely, especially in the evening with people speeding at more than 80 kilometers an hour.

This past summer we noticed the city instead of grading the shoulder away from the street, they have started pulling it up to the street. This causes piles of gravel from the shoulder to be positioned on the edge of the road, about 3 inches high in some places. Creating another added obstruction to our already narrow shoulders, and causing many a rolled ankle.

The posted speed is currently 60km in the residential area of Brockley, we are requesting it be reduced to 40km as drivers continually maintain and increase from the posted 80km off of Highbury to Wellington. We all know that speed kills, and speeds in excess of 40km/h greatly increases the risk of harm and death to pedestrians when hit by a vehicle. The speeds documented on this street range from 50km to over 120km/hr, as has been recorded in years past by police ticketing.

Do we wait for someone to get killed on our street before City council will take us seriously? Oh wait, that has already happened at the corner of Highbury and Dingman multiple times, and unfortunately steps have yet to be taken to address this rectifiable situation.

With the new developments in the surrounding area, we have become the by-pass for east-west traffic in the south end of the city, ranging from "hot-rodded" vehicles to transport trucks looking for an easy out of traffic lights and competing vehicles.

We the neighbors ask for the speed to be reduced to 40km/hour to assist in making our street safe again. We have many children, pets and elderly community members that enjoy the beautiful walks on our country but City Street, but they have been finding it more and more dangerous to do so.

In the petition a couple people have stated 50km/hour would be acceptable, however most want 40k/hour. Out of every house on the street only one did not sign, but verbally stated their support in the speed reduction.

This is a serious issue in our neighborhood, safety is not something that should be taken as lightly as the city appears to be, and we urge for the reduction to the speed, as this area continues to grow, we want our safety to be maintained and supported by the city.

We are a residential community, not a highway or a trucking route, your support in this matter is the only logical way to preserve and promote the safety of residents in this area.

Thank you in advance for your attention to the safety of our community, and importance of this matter.

Residents of Brockley

To: The City of London, Ontario

Re: Request for reduction of posted speed limit on Dingman Drive between Wellington Road and 2428 Dingman Drive

Date: October 31, 2021

We the undersigned request that the speed limit on Dingman Drive between Wellington Road and 2428 Dingman Drive be reduced from 60 km/h to 40 km/h per hour for the following reasons:

1. The presence of three autistic children who live on Dingman Drive, and the concern for their safety as there are no sidewalks or shoulders on this road, yet significant traffic movement throughout the day.

2. There has been a significant increase of traffic volume on this road over the past few years, and it is anticipated that there will be considerable more traffic in the near future as Costco will be constructing a new facility in our area, and other large new businesses will be constructed close by and attract significant additional car traffic.

3. Dingman Drive has become a preferred route by many individual and group cyclists, and their safety has been compromised as a consequence of the present speed limit.

DEFERRED MATTERS

CIVIC WORKS COMMITTEE

as of April 11, 2022

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, 2022	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: 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	Q3, 2022	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: 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.	August 12, 2019	Q2, 2022	K. Scherr J. Stanford	

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
4.	**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; 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.	July 14, 2020	Q3, 2022	D. MacRae A. Salton	
5.	**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, 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	November 17, 2020	Q2, 2022	K. Scherr J. Stanford	

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
	garbage, mandatory recycling by-laws, reward and incentive systems, and additional user fees.				
6.	**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	Q2, 2022	K. Scherr J. Stanford	
7.	**3rd Report of the Cycling Advisory Committee** b) the following actions be taken with respect to a City of London PumpTrack: ii) the Civic Administration BE REQUESTED to report back on the process and fees associated with a feasibility study with respect to the establishment of a pumptrack facility in the City of London; it being noted that the communication, as appended to the agenda, from B. Cassell and the delegation from S. Nauman, with respect to this matter, was received	May 11, 2021	TBD	K. Scherr, S. Stafford	
8.	**Blackfriars Bridge** That consideration of the Blackfriars Bridge remaining closed to vehicles indefinitely BE REFERRED to a future meeting of the Civic Works Committee in order for the Civic Administration to complete the required usage study as required in the Provincial EA, provide the related report to	November 2, 2021	Q2, 2023	K. Scherr, D. MacRae	

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
	council, and allow for a more fulsome public engagement with respect to this matter.				