

TO:	CHAIR AND MEMBERS STRATEGIC PRIORITIES AND POLICY COMMITTEE MEETING OF AUGUST 29, 2016
FROM:	JOHN BRAAM, P.Eng. MANAGING DIRECTOR, ENVIRONMENTAL AND ENGINEERING SERVICES AND CITY ENGINEER
SUBJECT:	2019 DEVELOPMENT CHARGE STUDY IN-HOUSE COMPLETION OF MASTER PLAN STUDIES

RECOMMENDATION

That, on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer, with the concurrence of the Managing Director, Finance and Corporate Services and City Treasurer, Chief Financial Officer, the following actions be taken with respect to the in-house completion of the Master Plan Studies for the 2019 Development Charges Background Study Update:

- a) the Civic Administration **BE AUTHORIZED** to allocate costs incurred by staff in the preparation of the Master Plan Studies to Growth Reserve Funds, as permitted under section 5(3)5 of the Development Charges Act.;
- b) the Civic Administration **BE AUTHORIZED** to undertake all administrative acts necessary to complete the Master Plan Studies; and
- c) the overall project schedule identified in this report **BE ENDORSED**, in order to enable the timely preparation of the Master Plan Studies.

PREVIOUS REPORTS PERTINENT TO THIS MATTER
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June 23, 2014	“Approval of 2014 Development Charges By-law and DC Background Study,” Strategic Priorities and Policy Committee
August 27, 2012	“Master Servicing and 2014 Development Charge Studies Consultant Appointment,” Strategic Priorities and Policy Committee.
April 30, 2012	“Initiation Report 2014 Development Charges Background Study and DC By-law Update,” Strategic Priorities and Policy Committee

2015-2019 STRATEGIC PLAN

The 2015-2019 Strategic Plan identifies this objective under Building a Sustainable City:

5B – Build new transportation, water, wastewater and storm water infrastructure as London grows;

and, under Leading in Public Service:

3A – Make sure that finances are well-planned to keep costs as low as possible and look to limit the burden on current and future rate payers.

BACKGROUND

Purpose:

This report provides details of the strategy to complete the Water, Wastewater, Stormwater and Transportation master plan studies.

These engineering studies provide growth related information for all infrastructure projects required to facilitate development and support the calculation of development charge rates for the 2019 DC By-law Update. Information such as capital costs, growth and non-growth splits, the benefit to existing population, and the allocation of net DC recoverable growth costs between residential and institutional, commercial and industrial (ICI) developments are calculated for each infrastructure project that enables growth in the 20 year time horizon of the study. Those projects within a twenty year implementation schedule are currently assessed city-wide and include those in the downtown core, projects along the proposed rapid transit corridors, and all other areas within the Urban Growth Boundary. A key deliverable in these studies will be to incorporate the new growth targets and assumptions outlined in the London Plan.

Discussion:

Following the completion of the 2014 DC Study, Administration reviewed the process to complete the 2014 study. Administration concluded that the City should undertake the Master Plan Study (MPS) in-house and recover the costs of the associated staff time from the DC reserve funds.

Further consideration preceding the tabling of this report has led to the following conclusions:

- (a) In house completion of Water based Master Plans: To complete the three water based MPS for the 2019 DC study, Environmental and Engineering Services (EES) and Finance and Corporate Services (FCS) staff consider the advantages to undertake the work internally exceed the advantages of an external resource. Not all of the work can be completed in-house and some work will continue to be directed to the engineering consulting industry, but it will be selective and serve a specific purpose as opposed to the full study development.
- (b) External Consultant to complete Transportation Master Plan: To complete the Transportation Master Plan, a significant effort is required to re-assess the traffic zones across the City to incorporate the new growth targets for population and employment outlined in the London Plan. These new future growth assumptions and the implementation of the Rapid Transit program, anticipated to commence sometime during the Master Planning process, will have a major impact on the capacity of staff within the Transportation Design Division. As a result, it is recommended that a qualified external engineering consultant undertake the master planning process for the Transportation Master Plan under supervision of EES staff.

The benefits of the “hybrid” model of using both in house resources and external consulting resources are discussed below.

Benefits of the In-House Approach:

A number of factors contribute to why the in-house approach makes sense for the Water, Wastewater and Stormwater Service’s 2019 MPS. The following five points outline what are considered the key benefits to an in-house model and are in no specific order:

1. Urban Growth Boundary

It is anticipated that the 2019 Background Study will not include a significant number of new projects or growth areas to be considered above what is included in the 2014 study. Most of the growth projects have been already been identified within the Urban Growth Boundary and considered within the 20 year planning horizon as required by the DC Act. If changes to the UGB were to be considered, then a more complex engineering study may be required that incorporates these new growth areas and infrastructure requirements.

2. Institutional Knowledge

Many of the key staff that have had a hand in developing recent studies (2004, 2009, and 2014) will be of retirement age over the next five years. As the Corporation moves past the baby boomer cohort, a significant amount of institutional knowledge will be lost in this transition. By taking advantage of the existing knowledge and bringing on new staff to develop and lead the MPS, a broad set of employees will gain the necessary knowledge and understanding of growth projects and the information needed to substantiate the DC rates.

3. Technical Expertise

The MPS are focused on “hard services”, i.e. pipes, roads, treatment plants, etc.

Within EES, there are committed employees who understand the intricate details of the planning, operation and maintenance of the City’s infrastructure. These details have been developed over years of experience and understanding of London’s unique requirements to service the local community. Our local engineering consultants provide a high level of technical expertise through the design of City infrastructure, but it is through consultation and guidance from City staff that the projects and designs are tailored to fit London’s specific servicing needs. It will still be necessary to engage the local consultants for some of the more complex modelling activities that cannot be completed in-house, but the details required to meet a community’s specific servicing needs are best managed by those that have daily interactions with the local residents and businesses.

4. Project Coordination

Once a project is identified for a particular growth area, the timing associated with the project is considered and factored into the overall rate calculation. Timing may be adjusted through the annual implementation plan review (aka. Growth Management Implementation Strategy - GMIS). A significant coordination and planning exercise is undertaken to ensure major projects that include a growth component consider the necessary improvements to roads, water, wastewater, and stormwater infrastructure and limit the social cost to local residents and businesses. This activity cannot be effectively completed by a third party and requires knowledge of Council policies for community engagement and purchasing, anticipated growth in an area, as well as knowledge of the asset to effectively develop project timing and scope.

5. Day to day activities

During the 2014 DC Study process, EES staff were actively engaged in the MPS process to ensure accuracy of the information, provide technical review where necessary, and guide the external consultant through the engagement with the local stakeholders. Although these activities were not at the same level of involvement as is expected in the in-house model, significant staff effort was required to complete the MPS. With existing staff actively engaged in the MPS process, it will be important to ensure that day to day activities continue to progress. Staff will be hired as necessary to ensure that the “regular” project management duties are completed in a timely manner.

Comparison:

It is expected that this hybrid approach will result in roughly the same cost to complete the studies as the external model used in 2014, but it is anticipated that the staff engaged in the work will produce a higher quality study. To estimate the time commitment, staff have developed an in-house Master Plan team and have assessed the level of effort based on past experience. The following table represents a comparison of the expected in-house program compared to the external approach.

1. Consulting hours and staff time

	Water		Storm		Sanitary	
	External	In-House	External	In-House	External	In-House
Days	137	286	325	286	180	286

Note: External consultant values have been adjusted to match the City's 7 hour work day

The figures above should be used cautiously for a number of reasons:

- The estimate of staff time for the in-house resources is preliminary at this stage but represents a period commencing in the fall of 2016 (where basic assumptions are defined), and concluding with the presentation of the draft report to Council in April 2018.
- Historically, when using the external consultant model, the amount of staff time has not been tracked. The *External* values above represent the time extracted from the 2014 external consultant's RFP submission only. Staff time required to manage the external consulting engagement is not reflected in the *In-House* estimates and does not reflect the number of hours spent participating in meetings and reviewing technical information provided by the consultant.
- The *In-House* days reflect the benefit of economies of scale by engaging City staff in all the report writing, public engagement and the technical reviews during the completion of the MPS.

2. Rationale for *In-House* completion

A final in-house cost estimate has not been provided at this stage. However, the per hour rate for staff to undertake the work will be significantly less than the consultant's per hour costs. Consulting hours include their profit and overhead and account for time that is not chargeable for higher level staff who are typically also engaged in proposal writing and administrative tasks. The City staff tasked with the MPS completion will be working strictly on a "cost recovery" basis.

To accurately apportion costs to growth and non-growth, a charge-out rate for each staff member engaged in the MPS will be developed. Staff time will be tracked by the City's financial accounting system (JD Edwards) and reports of actual time and in-house project cost will be compiled as the MPS proceeds. Sign-off and approval will be required at an appropriate level of management in EES to ensure that time spent on growth projects is reasonable at each stage of the study completion. The cost recovery of staff time will mitigate the costs of DC study completion that currently impact the tax and rate payer.

In 2014, the total external cost to complete the MPS's was as follows:

	Water	Storm	Sanitary	Total
Cost	\$130,598	\$350,341	\$153,492	\$634,431

3. External resources for some parts of the Studies

The comparison of the in-house approach will also be affected by the cost of external consulting resources. Although consulting fees are unknown at this stage, the estimate of total effort includes these external resources. These narrowly defined consulting assignments will ensure that key issues in assessing growth costs are defensible and incorporate industry best practices and the most current resources.

- Unit Costs – One of the external assignments will include the compilation and development of “standard” unit costs which will be applied to each of the proposed growth projects. This project would be a collective Water, Wastewater, and Stormwater assignment which may include consultation with local contractors for a validity test.
- Growth Projections – The update of population and employment projections by traffic zone that will in turn, drive the proposed growth program. These values will give EES the necessary information to identify needs in the different areas of the City requiring upgraded infrastructure to accommodate the growth. These new traffic zone growth allocations affect future growth needs and ultimate build-out assumptions.
- Specialized technical reports – reviews of the impacts of water consumption decline, inflow and infiltration, or other area specific modelling needs.

Risks:

Although the in-house model presents the best option for the water based services, there are a number of risks that can be managed with careful consideration by the MPS project team:

1. Appeal of the Bylaw – Any person or organization is granted the power to appeal the Development Charges By-Law within 40 days of its passing at Council by filing the challenge with the Ontario Municipal Board. To reduce the likelihood of a challenge, staff will continue to build on the positive working relationship and ensure that the local development community is actively engaged in the process. A significant analysis period has been built into the 2019 study schedule to give the development community time to review, comment, and participate in the establishment of the DC program for 2019 – 2024 bylaw.
2. Workload and Resources – To ensure that the project timeline is met, identified staff must be able to focus on the work of the MPS and have the tools to complete the studies, i.e. modelling software, report writing skills, etc.

Stakeholder Engagement:

In mid-August, prior to the tabling of this report to the Strategic Priorities and Policy Committee (SPPC), a meeting and discussion was held with key members of the Urban League, London Home Builders Association and the London Development Institute on this report’s topic and other DC related matters. A generally positive discussion on the In-House Master Plan Approach was held that focused on the quality, capacity and costs associated with staff undertaking the work. As outlined in this report, it is expected that a high quality product can be achieved in approximately the same budget using existing resources. Following our discussion, the London Development Institute indicated that they would articulate their support in a letter to SPPC.

These stakeholder meetings continue to expand on the collaborative approach fostered during the 2014 DC Study process and are intended to maintain the working relationship with the local development community. Throughout the development of the 2019 DC Study and rates, this collaborative approach will be applied.

Development Charges Act authority to recover costs of DC study from DC rates:

Section 5(3)(6) of the Development Charges Act gives authority to the City to undertake the work in-house and charge back time spent developing the studies from funding sources set aside for growth. This section of the Act further requires that authorization be provided by the Municipality to undertake the work and fund the study costs from DC reserve funds. The pertinent section of the DC Act is quoted below:

[Development Charges Act, 1997, S.O. 1997, c. 27](#)

“Capital costs, inclusions

5(3) The following are capital costs for the purposes of paragraph 7 of subsection (1) if they are incurred or proposed to be incurred by a municipality or a local board directly or by others on behalf of, and as authorized by, a municipality or local board:

1. Costs to acquire land or an interest in land, including a leasehold interest.
2. Costs to improve land.
3. Costs to acquire, lease, construct or improve buildings and structures.
4. Costs to acquire, lease, construct or improve facilities including, rolling stock with an estimated useful life of seven years or more, furniture and equipment, other than computer equipment, and materials acquired for circulation, reference or information purposes by library board as defined in the *Public Libraries Act*.
5. Costs to undertake studies in connection with any of the matters referred to in paragraphs 1 to 4.
6. Costs of the development charge background study required under section 10.
7. Interest on money borrowed to pay for costs described in paragraphs 1 to 4. 1997, c. 27, s. 5 (3).”

Project Schedule:

The following table provides an overview of the MPS project schedule leading up to a final delivery date in April of 2018. Following the completion of the studies, a thorough and detailed external consultation period will commence where the local Development Community will have an opportunity to review the Master Plans in significant detail and make comments and suggestions for improvement.

Activity	Completion Date
Review Design Standards and cost per meter/unit costs.	November 2016
Define Scope of DC Policy Reviews. Review “Local Servicing Policy” as part of this review.	December 2016
Update servicing areas using most recent EA, Core Area Servicing Study (CASS), and Design Studies and growth forecasts	February 2017
Commence modelling activities (internal and external resources)	March 2017

Activity	Completion Date
Define ToR, issue RFP, and select consultant for Transportation Master Plan	April 2017
Review, update, and develop ultimate servicing strategy – coordinate works across all services	October 2017
Review and investigate temporary and interim solutions	January 2018
Assess Treatment Plant and Pumping Station Needs	February 2018
Develop draft documents and information required for the calculation of DC rates – capital costs, G/nG splits, future benefit, etc.	April 2018
Report to Council	June 2018
External Stakeholder Consultation	July 2018 – January 2019
Final 2019 DC By-Law and Rates	June 2019

CONCLUSION

Following stakeholder engagement with the London Development Community and through discussions with EES and FCS, staff recommend an in-house model for the completion of the Water, Wastewater and Stormwater 2019 Master Plan Studies and the hiring of an external consultant to complete the Transportation Master Plan.

Projects costs will be actively tracked to ensure that growth costs associated with the development of the Master Plan Studies are consistent with the limitations set-out in the Development Charges Act and ensure an accurate assessment of staff costs dedicated to complete the master plan studies.

The draft Master Plans will be required by April 2018 in order to meet the overall project schedule for the completion of the 2019 Development Charge Background Study and By-Law Update. This schedule allows sufficient time (6 months) for analysis and commentary from the local stakeholders engaged in the development process and other members of the community interested in the establishment of DC rates.

Acknowledgements:

This report detailing the in-house Master Plan approach for the 2019 DC Study Update was prepared in Development Finance on behalf of the Environmental and Engineering Services Area.

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cc London Development Institute
London Home Builders Association
Urban League