TO:	**CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON JUNE 18, 2019**
FROM:	**KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR ENVIRONMENTAL & ENGINEERING SERVICES AND CITY ENGINEER**
SUBJECT:	**LONG TERM WATER STORAGE OPTIONS MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT: NOTICE OF COMPLETION**

RECOMMENDATION

That, on the recommendation of the Managing Director Environmental & Engineering Services and City Engineer, the following actions **BE TAKEN** with respect to the Long Term Water Storage Options Municipal Class Environmental Assessment:

(a) The Long Term Water Storage Municipal Class Assessment Executive Summary attached as Appendix 'A', **BE ACCEPTED**;

(b) A Notice of Completion **BE FILED** with the Municipal Clerk; and,

(c) The Project File for the Long Term Water Storage Options Municipal Class Environmental Assessment **BE PLACED** on public record for a 30-day review period.

PREVIOUS REPORTS PERTINENT TO THIS MATTER

Civic Works Committee - April 17, 2018 - Appointment of Consulting Engineering Services for Long Term Water Storage Options - Environmental Assessment

Civic Works Committee - April 2, 2012 - Contract Award: Springbank Reservoir #2 Rehabilitation Project No. EW3617 Tender No. 12-52

Environment and Transportation Committee - October 27, 2008 - Water System Risk Management Continuous Improvement Update

Environment and Transportation Committee - April 23, 2007 - Water System Risk Management Exercise and Evaluation

2019 – 2023 STRATEGIC PLAN

This report supports the Strategic Plan in the following areas:

- Building a Sustainable City: Improve London's resiliency to respond to potential future challenges; Build infrastructure to support future development and protect the environment; Maintain or increase current levels of service; manage the infrastructure gap for all assets.
- Leading in Public Service: Increase opportunities for residents to be informed and participate in local government; improve public accountability and transparency in decision making.

BACKGROUND

Purpose

The purpose of this report is to identify the preferred alternative for the Long Term Water Storage Options Schedule 'B' Municipal Class Environmental Assessment (EA), and recommend filing the Notice of Completion for the study to initiate the statutory 30-day public review period.

Context

The City of London has a robust water supply system, being fed from two Great Lakes, and having considerable stored water available in and around London. Water systems are required to have water storage to balance maximum day demands, fire needs and emergency storage. The City of London's storage is required to meet these needs, but also to provide back-up supply in the event the Lake Huron pipeline were to fail, as occurred in 1983,1988, and 2010.

One of the City's existing reservoirs, Springbank Reservoir #2 was constructed in the 1920's and is nearing the end of its useful life. Unlike the other City reservoirs which have fixed concrete roofs, Springbank Reservoir Two has a flexible floating cover. The risk of breaching this cover has been identified as one of the highest risks of biological contamination to the City of London water system. An Environmental Assessment has been completed in order to consider how the reservoir will be reconstructed or replaced. This environmental assessment has also analyzed the long-term storage needs city-wide considering the current need for emergency storage and the servicing needs of future urban growth.

DISCUSSION

In April 2018, the City of London appointed Aecom Canada Ltd. (Aecom) to complete the Municipal Class Environmental Assessment (EA) and conduct a preliminary design for Long Term Storage Needs in the City of London. As well as part of the scope, consideration was given to the Environmental Assessment Requirements with respect to:

- decommissioning of Springbank Reservoir #2,
- decommissioning the McCormick Reservoir,
- decommissioning the existing White Oaks Filter Plant, and
- reviewing the need for backup power for the Arva Pumping Station.

The evaluation of alternative solutions was completed with consideration to social, environmental and other technical factors.

The preferred recommended alternative consists of constructing a new 100 ML Reservoir on Site A1, the location of the existing Springbank Reservoir #2 on an expanded footprint. This area is known as Reservoir Hill and has two other drinking water reservoirs as well as a park called Reservoir Park. The site has been home to most of the City of London's drinking water storage dating back to the beginning of our system in the 1870's. The major advantage of this site is that its elevation allows it to supply sufficient pressure to the majority of the City by gravity which is known as "Floating Storage". This provides the same function as a water tower for a fraction of the cost. The use of this site and its protection has long been a major advantage for the City's water system.

Public/Stakeholder Consultation

As part of the study, two Public Information Centre was conducted. Notifications for the meeting were published in the two weeks preceding the Public Information Centre as well as on the City's webpage. PIC #1 was held on June 20, 2018 at City Hall in Committee Room #1. The meeting was attended by 6 members of the public, including some adjacent property owners from the Springbank site area and the Northeast area. Notifications of the project were also sent to applicable federal, provincial, and municipal stakeholders, and local First Nations communities. PIC #2 was held November 28, 2018 at City Hall in Committee Room # 2. This meeting was attended by 3 members of the public. Notifications of the project were also sent to applicable federal, provincial, and municipal stakeholders, and local First Nations communities.

Preferred Alternative

The preferred alternative is to construct a new reservoir on Springbank Reservoir Site A1. This is in the same location as the current Springbank 2 Reservoir, but on a footprint widened to the east as shown in Appendix 'B' Executive Summary, Figure ES3 Preferred Alternative.

Construction of the preferred alternative would result in a number of benefits for the City. These include:

- Replacing infrastructure that has reached the end of its useful life;
- New reservoir fixed roof decreases the drinking water quality risk posed by the existing floating cover on Springbank #2. This cover has been identified as among the largest drinking water quality risks in the City;
- Ensures the City can continue to supply water for 48 hours after the loss of its primary supply. Assumes one max (peak) day followed by one average day after the loss of supply from Lake Huron;
- Allows greater operational flexibility, and;
- Accommodates future growth.

Construction of the preferred alternative represents good value to the City of London and will satisfy the City's drinking water storage needs through 2044.

Agency Comments

The Ministry of Environment, Parks and Conservation provided comments at the time of the Notice of Commencement to indicate that Source Water Protection and Climate Change should be considered during the EA. Very few comments were offered on the Draft EA which included standard comments related to ground water and source water protection. These comments can be addressed through the detailed design of the project.

First Nations Consultation

Consultation with First Nations is a mandatory component of the Municipal Class EA process and is required as a result of the Crown's Duty to Consult. At the beginning of the Study, a comprehensive list of was developed by the project team. Several First Nations responded that the project was outside their area of concern. Chippewas of the Thames First Nation responded to the Notice of Commencement and indicated that the project was identified to be of Moderate Concern and requested additional information. Through subsequent exchanges of information and Consultation, it was determined that the Chippewas of the Thames First Nations would like to monitor further activities related to Archeological Assessment for the project and the Environmental Impact Study.

Natural Heritage, Archeological, and Cultural Considerations

Delegation status and a presentation was made to the Environmental and Ecological Planning Advisory Committee on April 11, 2019. The committee asked a few technical questions but was supportive of the overall project and approach with the understanding that an Environmental Impact Study (EIS) would be completed for the preferred site.

The London Advisory Committee on Heritage (LACH) Advised that the London Advisory Committee on Heritage (LACH) supports the conclusions of the Cultural Heritage Screening Memo, contained within the Long Term Water Storage Municipal Class Environmental Assessment dated March 26, 2019, from AECOM; it being noted that the LACH supports the preferred alternative of the Springbank Reservoir and that a Stage 1-2 Archeological Assessment and a Cultural Heritage Screening Report should be completed for the preferred alternative. Delegation Status and a presentation was made to LACH on April 10, 2019.

Financial Implications

The cost of constructing this new reservoir is estimated at approximately $36M. The replacement of Springbank Reservoir #2 had been previously scheduled for 2023 in Water's 20-year Financial Plan to align with the remaining life on its floating cover. This replacement budget was only approximately $15M since it contemplated replacing Springbank #2 with the same size reservoir whereas this study recommends significantly increasing the capacity. As part of the 2020-2023 budget process, priorities in the Water budget will be reassessed in order to establish funding for this work.

Next Steps

The following steps will be taken to finalize the Long Term Water Storage Options EA:

- Upon Acceptance by Council, publish a "Notice of Completion" and commence the 30-day review period.

- Stakeholders can provide written notification within the 30-day review period to the Minister of the Environment, Conservation and Parks requesting further consideration. This process is termed a "Part II Order". Subject to no requests for a Part II Order being received, the Project File will be finalized.

- The Preliminary Design will be completed in 2019. The study work will include completing the archeological assessments and cultural heritage reports, and Environmental Impact Study (EIS).

- As part of the 2020-2023 budget determine the timing of the final design and construction of the reservoir.

CONCLUSIONS

The Long Term Water Storage Options Environmental Assessment was undertaken to Identify a preferred location for additional storage to address needs for the City of London in order to have adequate storage to allow the abandonment of the existing Springbank #2 Reservoir and to address needs for growth. The preferred alternative provides a strong technical solution that also substantially mitigates environmental impacts. Staff recommend that the preferred servicing alternative identified in the EA be posted for the 30-day public review period.

Acknowledgements

This document has been prepared by Patricia Lupton, Environmental Services Engineer in the Water Engineering Division.

SUBMITTED BY:	REVIEWED AND CONCURRED BY:
AARON ROZENTALS, P. ENG. **DIVISION MANAGER** **WATER ENGINEERING**	**SCOTT MATHERS, MPA, P. ENG.** **DIRECTOR, WATER AND WASTEWATER**

RECOMMENDED BY:
KELLY SCHERR, P. ENG., FEC **MANAGING DIRECTOR,** **ENVIRONMENTAL & ENGINEERING SERVICES & CITY ENGINEER**

June 10, 2019

Attach: Appendix ‘A’ – Executive Summary - Long Term Water Storage Municipal Class Environmental Assessment Project File
Appendix ‘B’ – Preferred Alternative

Cc. John Haasen, Aecom
Alan Dunbar, City of London
Jason Davies, City of London