Agenda Item # Page #

TO:	**CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON MARCH 8, 2016**
FROM:	**JOHN BRAAM, P. ENG. MANAGING DIRECTOR, ENVIRONMENTAL & ENGINEERING SERVICES & CITY ENGINEER**
SUBJECT:	**"ONE RIVER" - MASTER PLAN ENVIRONMENTAL ASSESSMENT**

RECOMMENDATION

That, on the recommendation of the Managing Director, Environmental & Engineering Services & City Engineer the Civic Administration **BE DIRECTED** to develop a Terms of Reference and budget for a consultant assignment to complete a "One River" Master Plan Environmental Assessment Study that would encompass an area from the Springbank Dam to the Forks of the Thames and Harris Park.

PREVIOUS REPORTS PERTINENT TO THIS MATTER

Planning and Environment Committee – December 14, 2015 – Back to the River Design Competition

Strategic Priorities and Policy Committee – January 28, 2016 – Downtown Infrastructure Planning and Coordination

Civic Works Committee – February 2, 2016 – West London Dyke Master Repair Plan Municipal Class Environmental Assessment Study

Civic Works Committee – February 2, 2016 – Springbank Dam

2015-19 STRATEGIC PLAN

The 2015 – 2019 Strategic Plan identifies these objectives under Building a Sustainable City: 1B – Managing our infrastructure; 3E -- Strong and Healthy environment through protection of the natural environment; 4E – Beautiful places and spaces through investing in making London's riverfront beautiful and accessible for all Londoners. Under Growing our Economy: 2A – promote Urban regeneration through investing in London's downtown as the heart of our city.

BACKGROUND

Purpose

In a report to Strategic Priorities and Policy Committee (SPPC) January 28, 2016, staff suggested that due to the broader social, economic and natural environment issues associated with the Springbank Dam and Back to the River projects, it should be considered that both projects be studied together through a "One River" Master Plan Environmental Assessment. This report provides a more thorough explanation of this recommended direction.

Agenda Item # Page #

Context

The Springbank Dam and its relationship to the Back to the River design concepts were found to share social, economic and natural environment objectives and implications. The advancement of these projects should be considered together in a Municipal Class Environmental Assessment (EA) study using the Master Plan approach.

DISCUSSION

Springbank Dam and Back to the River

Two major projects are under consideration that will have a significant impact on an 8 km reach of the Thames River Corridor. The decision on what to do with the Springbank Dam and on moving forward with the transformational Back to the River "The Ribbon of the Thames" concept plan are two environmentally important, and technically complex initiatives with far reaching implications. The Thames River corridor within this 8 km area provides the habitat for several species at risk that are protected by federal and provincial legislation. This protection will have implications on the future public use of the area. The natural significance of this corridor contrasts the existence of a river system within an evolving urban context. The balance between the needs of a developing downtown area and those of the natural context of the Thames River is a complex one. These types of issues are common to many new infrastructure projects. In Ontario, the *Environmental Assessment Act* provides for a process for evaluating the environmental impacts/benefits of a project with the needs of the public from a social, economic and technical perspective. The following sections will provide a more thorough explanation of the recommendation to undertake the Springbank Dam and Back to the River projects as part of a single/integrated "One River" EA master plan.

Need For an EA

The provincial *Environmental Assessment Act* provides criteria for the types of projects that trigger the requirement for undertaking an Environmental Assessment. An appendix to this report "Appendix A: Municipal Class Environmental Assessment Process: An Introduction" provides a high-level description of the Class EA process and the various categories of Class EA schedules. There are specific components of both the Springbank Dam and Back to the River projects that trigger the regulatory requirement to complete a Class EA.

- Springbank Dam

  To address the question of "What to do with the Springbank Dam?" there are many options that can be considered. These options can be broadly categorized as either decommissioning/re-purposing the dam or repairing/operating the dam differently. Any option to decommission/re-purpose the dam would require a Schedule B Class EA. To repair the dam as outlined in the 2003 Class EA would not in itself require a new EA; however, it would be prudent for Council to consider one. Given that species at risk and their habitat exist in the area, it may be difficult to secure the updated permits and approvals required by the various agencies without undertaking a new EA. An EA approach to the project has been

recommended by the Ministry of Natural Resources and Forestry.

- Need For an EA: Back to the River

  The winning “The Ribbon of the Thames” design concept includes several features that trigger the regulatory requirements for an EA. “The Ribbon of the Thames” concept includes shoreline alterations, flood plain filling, construction of a walking bridge, and in-river construction work all of which in themselves require the need for a Schedule ‘C’ Class EA.

Benefits of combining the two projects

It is the recommendation of staff to consider the underlying issues that affect both the Back to the River project and Springbank Dam into a single environmental assessment master plan study. As discussed in more detail in Appendix ‘A’, EA Master Plans consider a group of related projects, or an overall system (e.g. Thames River) in addition to project specific issues. By planning in this way, the need and justification for individual projects and the associated broader context and cumulative impacts are better defined for agencies and the public.

More specifically, the recommended EA would start with “why and how” people interact with the Thames River in the middle of the City. This may or may not include managing water levels, but there are many other ways the interaction can occur, and a range of resulting limitations and opportunities of doing so. The dam as it was operated was our plan for public interaction with the river for some 80 years. What should this plan be now? A river and 365,000 people can’t ignore each other – they will interact, so it is in the best interest of all to set a new plan that projects can flow from.

The difficulty with the present conversation is that it is not based on fulsome facts and analysis. The recent staff reports include the terms “sustainable” and “urban centre” to help with expectations from all sides of the discussion. An EA looks at all forms of environment: social, natural, technical and financial in an attempt to find balance. An EA does not jump to an answer – it allows for a good conversation, with the public, regulatory agencies and our First Nations neighbours, on what is in the long-term interests of everyone and everything, and would recognize all interests. Is the purpose of an EA to justify the existence of the dam? No. The dam is not the only way to create opportunities for people to interact with the river downtown – to look at it, stand next to it, fish in it, and boat on it – all in balance with the natural environment.

The following sections provide three of the most significant practical advantages of undertaking the master plan EA approach for the Back to the River and Springbank Dam projects:

- **Both projects are linked from a river health and environmental perspective.**

  Both projects have impacts on the health of the Thames River and require substantial environmental monitoring to be completed within a similar area. Appendix ‘B’ “Springbank Dam Area of Historical Influence” shows the area where the water level was historically affected by the Dam. This area of influence completely overlaps with the Back to the River “The Ribbon of the Thames” design concept.

Agenda Item # Page #

With the goal of improving the health of the Thames River, the “One River” EA master plan will also build upon and integrate with the work currently underway on the Pollution Prevention Control Plan (PPCP). The PPCP is the road map for the implementation of $500 M in infrastructure improvement projects over the next 10 years and will significantly impact the health of the Thames within the area historically influenced by the Springbank Dam. Combining the Back to the River and Springbank Dam projects will provide a greater set of solutions for maintaining and improving the health of the Thames River.

- **Both projects are interrelated from public use and recreational perspectives.**

  A critical goal of a standalone Springbank Dam EA or the Back to the River EA would be to provide improved access to the Thames River. Any option to be considered for the Springbank Dam (decommissioning, repair, repurposing) will influence the outcome of the Back to The River design work. The average summer water level in the Thames River directly impacts the design of the Forks of the Thames inaugural project. Considering these projects together will ensure that EA study work will provide an integrated solution.

- **Combining the projects allow for substantial cost efficiencies.**

  The environmental assessment process includes several standard statutorily required components. These include a pre-determined number of public meetings, completing an Environmental Study Report, and environmental field study work. Combining the two projects will eliminate the need for duplicate public meetings, result in a single study report, and optimize the environmental field study work. This leads to costs that are on the whole less than completing two standalone projects.

CONCLUSION

Recommendation:

It is recommended that due to the inter-related nature of the Springbank Dam and Back to the River projects, the opportunities for cost efficiencies and to address the underlying questions about public/river interactions in the longer term, a single “One River” Master Plan Environmental Assessment be undertaken.

The first step in undertaking a “One River” Master Plan EA will be to develop a Terms of Reference for a consultant assignment. In developing, the terms of reference staff will work closely with the four key regulatory agencies that will be involved in any future approvals related to the Back to the River and Springbank Dam projects. These agencies include the:

- Department of Fisheries and Oceans (Federal);
- Ministry of Natural Resources and Forestry (Provincial);
- Ministry of Environment and Climate Change (Provincial); and
- Upper Thames River Conservation Authority.

Agenda Item # Page #

It is critical to the success of this EA that input from these agencies be considered early and often throughout the EA process.

Once the Terms of Reference has been completed, it is recommended that it be brought back to Committee for consideration. Upon approval by Council of the terms of reference, a procurement process can begin to award the consultant assignment.

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Attach: Appendix ‘A’: Municipal Class Environmental Assessment Process: An Introduction
Appendix ‘B’: Springbank Dam Area of Historical Influence

cc. G. Belch
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Agenda Item # Page #

APPENDIX 'A'

Municipal Class Environmental Assessment Process: An Introduction

What is a Municipal Class Environmental Assessment (EA)?

An Environmental Assessment is the process of determining what environmental impacts, if any, there will be during a project and how to minimize the impacts. The Environmental Assessment process falls under the Ontario Environmental Assessment Act.

The term "environment" includes the natural, social, cultural, built and economic environments.

There are two types of Environmental Assessment (EA) processes:

1. "Individual EA" - where projects have Terms of Reference and an individual environmental assessment carried out and submitted to the Minister of the Environment for review and approval.
2. "Class EA" - where projects are approved subject to compliance with an approved class environmental assessment process with respect to a class of undertakings.

Almost all municipal projects fall under the "Class EA" category of Environmental Assessments. The only "Individual EA" currently being undertaken in the City of London is for the expansion of the W12A Landfill.

Class EAs: Schedules

Class EA's are categorized into three different schedules based on the impact they have on the environment.

Schedule A - This is the most common type of schedule. The project is generally limited in scale and has minimal adverse environmental effects. Schedule A projects are pre-approved and may proceed without following the full Class EA planning process. As per the 2011 amended Municipal Class Environmental Assessment document; to reconstruct a dam or weir at the same location and for the same purpose, use and capacity is considered a Schedule A project.

Schedule A+ - This is the same as a Schedule A project, however, the public is to be advised prior to the project implementation. The public will not have the option of requesting a Part II Order under a Schedule A+. As per the 2011 amended Municipal Class Environmental Assessment document; to retire a facility which would have been subject to either Schedule B or C of the Municipal Class EA for its establishment is considered a Schedule A+ project.

Schedule B - Schedule B projects have the potential for adverse environmental effects. The proponent is required to undertake a screening process, and have a public information meeting with agencies and the public directly affected by the work. If all concerns are addressed the proponent may proceed to implementation. As per the 2011 amended

Municipal Class Environmental Assessment document the following are considered Schedule B projects;

- Works undertaken in a watercourse for the purposes of flood control or erosion control which may include: bank or slope regarding; deepening the watercourse; relocation, realignment or channelization of a watercourse; revetment including soil bio-engineering techniques.
- Removal of an existing dam or weir.
- Construct berms along a watercourse for purposes of flood control in areas subject to damage by flooding.

Schedule C - The project has the potential for significant environmental effects. Schedule C projects must proceed under the full planning and documentation procedures. An Environmental Study Report must be prepared and filed for review by the affected public and agencies. As per the 2011 amended Municipal Class Environmental Assessment document; construction of a new dam or weir in a watercourse is considered a Schedule C project.

EA Process

The Environmental Assessment (EA) planning process is broken down into phases:

Phase 1 (all Schedules) - Identify the problem or opportunity.

Phase 2 (Schedule B & C) - Identify alternative solutions taking into consideration the existing environment. This is when it is determined what schedule the project falls under.

Phase 3 (Schedule C) - Examine alternative design concepts for the preferred solution.

Phase 4 - Create an Environmental Study Report (ESR).

Phase 5 - Execute the project.

Agenda Item # Page #

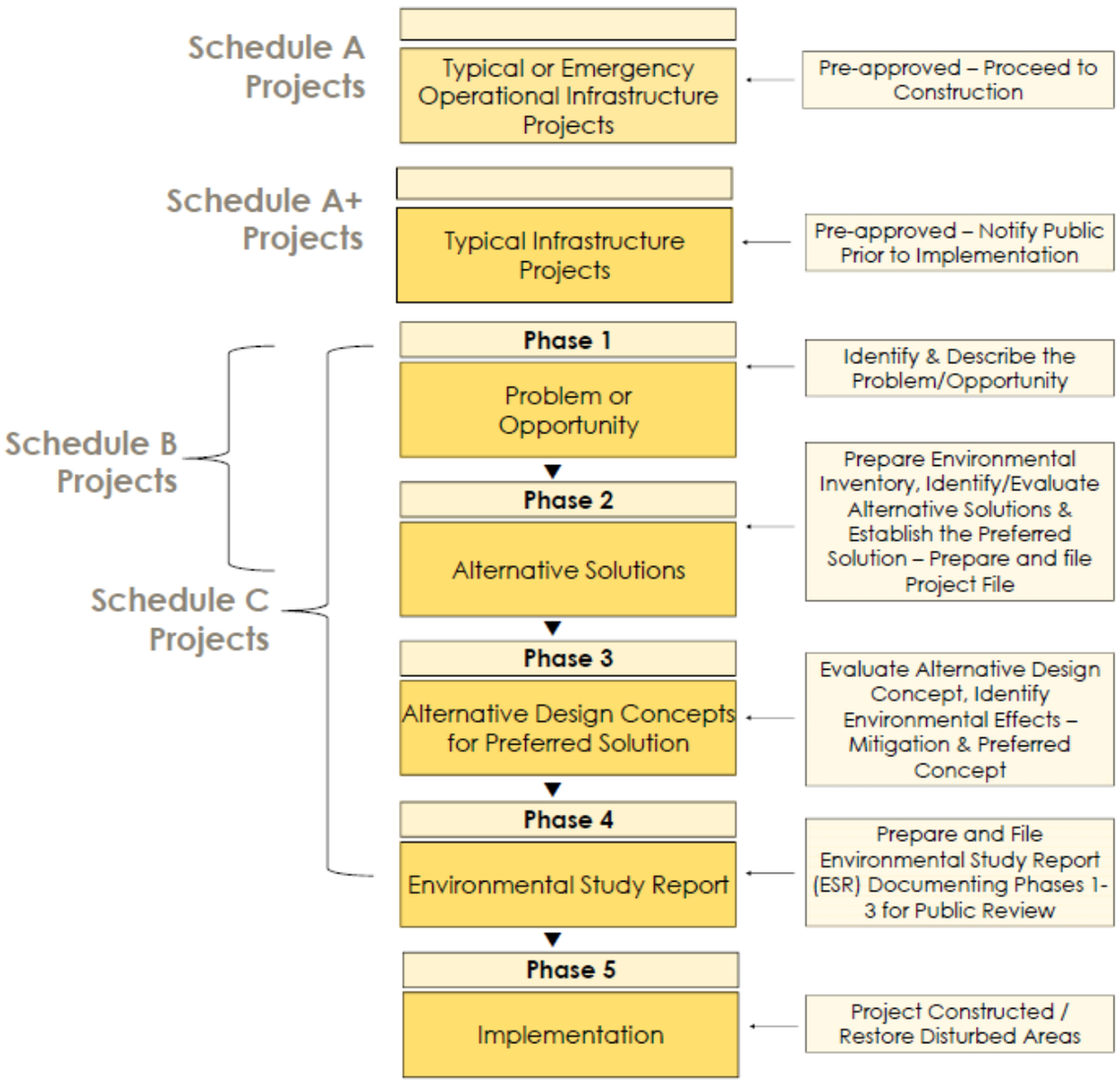

Figure 1. Municipal Class EA process simplified figure.

Master Plans and the EA Process

It is recognized that in many cases it is beneficial to begin the planning process by considering a group of related projects, or an overall system, e.g. Thames River, prior to dealing with project specific issues. By planning in this way, the need and justification for individual projects and the associated broader context, are better defined.

Master Plans typically differ from project specific studies in several key respects. Long range infrastructure planning enables the proponent to comprehensively identify need and establish broader infrastructure options. The cumulative impact of project specific alternatives is also better understood which may lead to other and better sustainable solutions.

The following are distinguishing features of Master Plans:

a) The scope of Master Plans is broad and usually includes an analysis of the system in order to outline a framework for future works and developments. Master Plans are not typically undertaken to address a site-specific problem.

Agenda Item # Page #

b) Master Plans typically recommend a set of works which are distributed geographically throughout the study area and which are to be implemented over a period of time. Master Plans provide the context for the implementation of the specific projects which make up the plan and satisfy, as a minimum, Phases 1 and 2 of the Class EA process. Notwithstanding that these works may be implemented as separate projects, collectively these works are part of a larger management system. Master Plan studies in essence conclude with a set of preferred alternatives and therefore, by their nature, Master Plans will limit the scope of alternatives which can be considered at the implementation stage.