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| **TO:** | **MAYOR AND MEMBERS<br>MUNICIPAL COUNCIL<br>MEETING ON MARCH 22, 2016** |
| **FROM:** | **JOHN BRAAM, P. ENG.<br>MANAGING DIRECTOR, ENVIRONMENTAL & ENGINEERING SERVICES & CITY ENGINEER** |
| **SUBJECT:** | **"ONE RIVER" - MASTER PLAN ENVIRONMENTAL ASSESSMENT: BACKGROUND INFORMATION** |

## RECOMMENDATION

That, on the recommendation of the Managing Director, Environmental & Engineering Services & City Engineer, the following report **BE RECEIVED** for information.

## PREVIOUS REPORTS PERTINENT TO THIS MATTER

Civic Works Committee – March 8, 2016 - "One River" - Master Plan Environmental Assessment

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 Civic Works Committee (CWC) March 8, 2016, staff suggested that a "One River" Master Plan Environmental Assessment (EA) be completed to provide a broad

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review of social, economic, and natural environment issues associated with the various river projects. At that committee meeting, it was resolved that:

> "the Civic Administration BE DIRECTED to report back at the Municipal Council meeting of March 22, 2016 with respect to how the EA process would unfold, including information regarding proceeding with a "master" EA process versus two separate "EAs".

The purpose of this report is to provide the information requested in this resolution and to provide a revised One River EA Master Plan EA approach in response to the feedback received at the March 8th CWC meeting. This revised approach would allow the Back to the River Inaugural project and Springbank Dam to be considered independently following the first two phases of the EA Process.

**Context**

Various components of the proposed Back to the River design concepts trigger the need for an environmental assessment. To abandon, decommission, repair, or repurpose the Springbank Dam also triggers the requirements of the *Environmental Assessment Act*. This report describes the requirements of the MCEA process as it relates to any of the projects that will impact the Thames River. The overall intent is to undertake a Master Plan EA process as a precursor to completing the individual site specific EAs. The Master Plan EA portion of the overall EA process will provide a strategic level assessment of the various options to address overall system needs and potential impacts, and mitigation prior to completing remaining project-specific environmental assessment steps.

## DISCUSSION

### ***Environmental Assessment Act***

The purpose of the Ontario *Environmental Assessment Act* is to provide for:

> "the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management in Ontario of the environment."

The Act applies to all municipal "undertakings" which includes a broad spectrum of work:

> "an enterprise or activity or a proposal, plan or program in respect of an enterprise or activity"

The provincial *Environmental Assessment Act* determines the context in which municipalities undertake infrastructure projects. The Act allows for either "Individual"

EAs or approved categories of “Class” EAs to meet the requirement of the Act. Almost all City EAs are completed as “Municipal Class Environmental Assessment”. These Class EAs are completed based on a manual titled “Municipal Class Environmental Assessments” (MEA, 2011) that outlines the process to meet the requirements of the *Environmental Assessment Act.*

***History of the Act***

Ontario’s *Environmental Assessment Act* was first introduced in the early 1970s as a response to a long tradition of unilateral infrastructure decision making by government. Prior to this time, little regard was given to the "Environment" as it is considered in its broad sense of including the natural, social, cultural, built and economic environments. The goal of the Act was to create a public process that was rational, consistent, transparent, and fair. It is essential that the process be undertaken in a way that respects and considers all possible options and moves forward without a predetermined outcome in mind. Irrespective of whether a proponent approaches the undertaking with or without a notional outcome, the process requires consideration and evaluation of all possible project directions as justification.

***Master Plans and the Class EA Process***

The Municipal Class Environmental Assessment Manual (MEA, 2011) provides direction on the environmental assessment process to be used on a range of infrastructure projects. These projects can be completed on a project-by-project basis or on a master planning basis. The manual provides the following direction on Master Plan EAs:

> *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 combined impact of alternatives is also better understood which may lead to other and better solutions. In addition, the opportunity to integrate with land use planning enables the proponent to look at the full impact of decisions from a variety of perspectives. The following are distinguishing features of Master Plans:*
>
> - *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.*
> - *Master Plans typically recommend a set of works which are distributed geographically throughout the study area and which are to be implemented over an extended 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. (MEA, 2011)*

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The purpose of the Master Plan EA is to recommend an infrastructure master plan that can be implemented through separate site-specific projects. The following figure outlines the various environmental assessment options available:

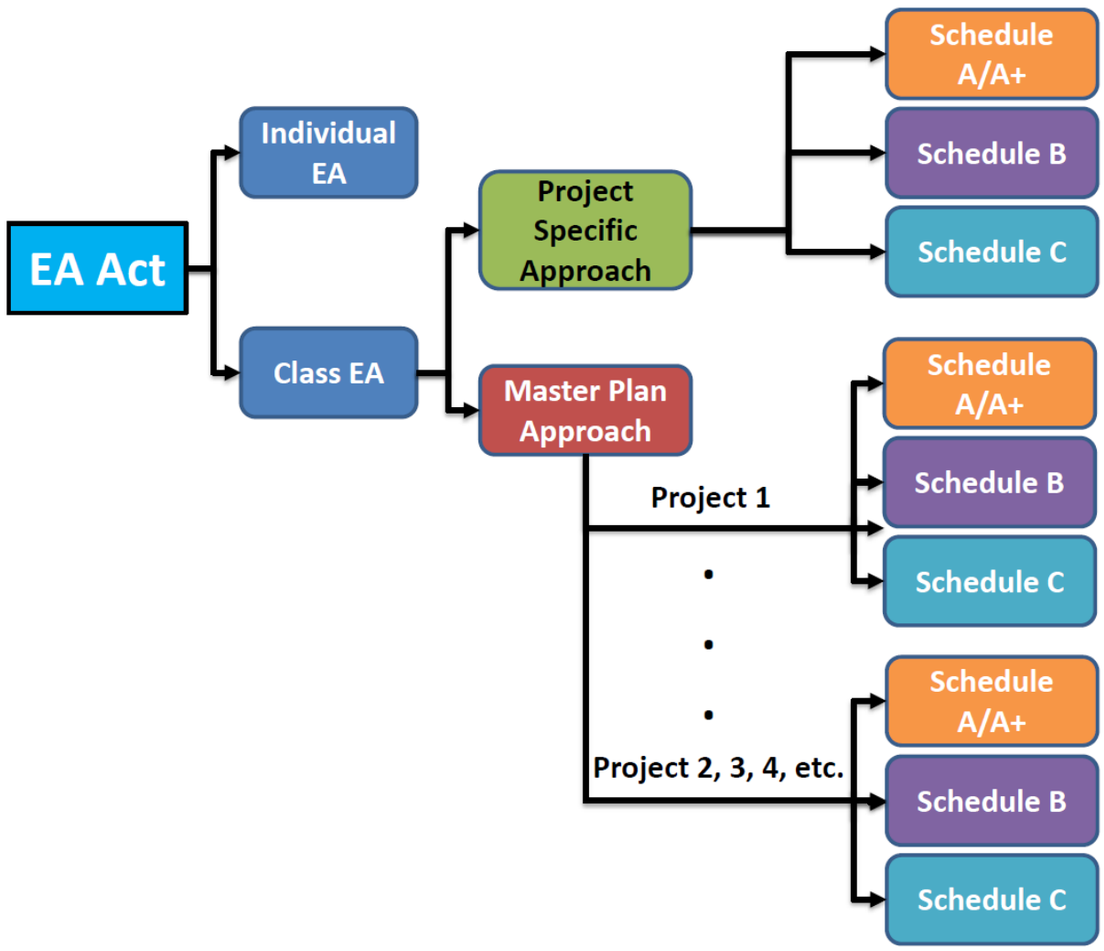


**Figure 1 Environmental Assessment Process Options**

During previous EA study processes, the Ministry of the Environment and Climate Change (MOECC) has urged the City to undertake Master Plan EAs in circumstances where several projects have been proposed within in a similar geographic area or that form part of a common system. These comments have heavily informed our decision-making and our recommendations on how to proceed with future environmental assessment processes. As such, the City has undertaken several Master Plan EAs including:

- Transportation Master Plan
- Southwest Area Sanitary Servicing Study Master Plan
- Dingman Stormwater Master Plan

A letter attached as Appendix 'A' "MOECC Letter" further clarifies the MOECC's position on the Master Plan EA process and further details the benefits of a the Master Plan EA process. As the agency tasked with administering the *Environmental Assessment Act* their commentary and advice is important to the successful completion of the environmental assessment process.

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**Revised One River EA Master Plan EA Approach**

In the March 8th report to CWC, it was recommended that a single "One River" Master Plan Environmental Assessment be undertaken that would include both the Springbank Dam and Back to the River projects. It was the intent in this proposal that both the Springbank Dam and Back to the River projects would be considered together during the first two phases of the EA process and the site-specific projects would be taken to conclusion during the Master Plan EA. This approach is referred to as Master Plan "Approach #2" in the MCEA manual. There is an alternative approach where the project specific elements (Back to the River Inaugural project, Springbank Dam) can be considered independently following the first two phases of the EA Process. This approach (referred to as "Approach #1" in the MCEA manual) will provide the benefits of the Master Planning approach and provide the ability to separate the project specific components. The attached figure ("Appendix 'B': One River EA Process) provides a diagram of the EA process phases to be undertaken for the Master Plan EA using this revised approach and highlights the opportunities for future Council engagement.

The Master Plan phases of the project include the first phase "Problem/Opportunity" and the second phase "Alternative Solutions". The first phase "Problem/Opportunity" is the period when the need for the various projects will be defined. This definition of the problem statement will include input from the key stakeholders including the:

- The Public
- Committee and Council
- First Nations
- London Community Foundation
- 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.

Once a draft problem/opportunity statement is developed, it is recommended that a report be submitted to committee/Council as an opportunity to receive committee feedback and confirm the statement prior to moving on to Phase 2 of the process. It is anticipated that Phase 1 will take 1-2 months to complete.

Phase 2 "Alternative Solutions" is the phase where most of the study work occurs. During the first portion of Phase 2, the consultant team will prepare natural, social, cultural, built and economic environment inventories to determine opportunities and constraints, and identify/evaluate alternative approaches. Activities would include such things as river flow modelling to consider various water level effects in dry and wet years on the natural environment, alternatives to managing potentially various water levels in different locations of the reach to meet the need/problem statement, dam decommissioning options, etc. Mitigation of any negative outcomes is an important part of the process.

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Agency reviews are also very important in Phase 2 because their input and the solution outcomes will form the basis for future permit approvals. Following the completion of the inventory/assessment/evaluation process, a public meeting will be held to engage and receive comment from the public on the various alternative approaches. Following this engagement and comment, a set of preferred and compatible project alternatives will be recommended to Council; subject to Council approval, these will form the basis for further consultation on specific project directions.

Following completion of the Master Planning portion of the EA, the various site-specific projects would proceed separately though the process as either Schedule 'A', Schedule 'A+', Schedule 'B' or Schedule 'C' projects on their own timing. The "Schedule" of a project is determined by consulting the Municipal Class Environmental Assessment Manual (MEA, 2011) which provides a comprehensive list of project and cross-listed with the applicable EA schedule. Schedules range from "A" to "C" with Schedule A projects having the least environmental impact and Schedule C projects having the most impact.

The breadth of projects considered as part of the One River EA will not be determined until the "Alternative Solutions" phase (Phase 2) of the EA process. Below are examples of Schedule 'A' Schedule 'A+', Schedule 'B' or Schedule 'C' projects for reference purposes:

***Schedule A***

- Replace traditional materials in an existing watercourse or in slope stability work with material of equal or better properties, at substantially the same location and for the same purpose.
- Reconstruct an existing dam weir at the same location and for the same purpose, use and capacity.

***Schedule A+***

- To retire a road, sewage, stormwater management or water facility which would have been subject to either Schedule B or C of the Municipal Class EA for its establishment.

***Schedule B***

- Works undertaken in a watercourse for the purposes of flood control or erosion control which may include:
  - bank or slope regrading;
  - 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.
- Construction of new water crossings (bridge) with a construction value less than $2.4M.

***Schedule C***

- Construction of a new dam or weir in a watercourse.
- Construction of new water crossings (bridge) with a construction value greater than $2.4M.

One of the key benefits of the Master Plan approach is that completing the Master Plan satisfies the majority of the overall environmental assessment requirements for all of the specific projects considered in the Master Plan.

**Schedule A/A+ Projects**

In the case of Schedule A and Schedule A+ projects considered in the One River Master Plan would meet all of the process requirements of the *Environmental Assessment Act* and these projects could proceed once the Master Plan is complete.

**Schedule B Projects**

The majority of the work required for Schedule B projects would be satisfied by One River Master Plan. Two, primarily administrative, steps would need to be undertaken prior to commencing each Schedule 'B' project. First, a copy of the project file would need to be put on public record and then a Notice of Completion must be issued with an opportunity for any member to submit a Part II Order to the MOECC (See Appendix 'C' for more details on Notice of Completion and Part II Orders).

**Schedule C Projects**

Any Schedule C project would require two additional phases beyond the Master Plan. Phase 3 "Alternative Design Concepts for the Preferred Solution" includes developing a conceptual design for the preferred alternative that is to be shared with the public for comment through an additional public meeting. Phase 4 "Environmental Study Report" includes preparing an Environmental Study Report summarizing in detail all of the work completed as part of the study process. Schedule 'C' projects also trigger the requirement of issuing a Notice of Completion with an opportunity for any member to submit a Part II Order to the MOECC. It is unlikely that any specific projects recommended by the master plan will trigger the requirement for a Schedule C EA.

**Revised One River EA Approach: Project Implementation Impact**

As noted above, the revised One River Master plan EA approach would allow the various Master Plan projects (including the Back to the River projects and Springbank Dam) to move forward as project-specific EAs following Phase two of the EA process. This approach significantly increases the speed of implementation for Back to the River project. Critical factors include: water levels and their impact on natural, social and economic environments (large changes in water elevation, small or not at all; natural

environment management within an urban setting; public, social and economic risk management for all projects; sustainable project results (achieving intent now and in the years to come).

In order to finalize the conceptual design for the Back to the River project the water elevation will need to be determined. Having considered approaches to this in the Master Plan, the project specific phase of the Back to the River concept will no longer need to rely on the outcome of the remainder of the Springbank Dam EA process; the Master Plan would have provided the required direction to move forward.

**First Nations Engagement**

In 2003 when the original Springbank Dam EA was completed, the Municipal Class Environmental Assessment process included requirements for public consultation; however, it did not include specific provisions for First Nations engagement. Since that time, the Municipal Class Environmental Assessment process has a built-in requirement for First Nations engagement throughout the EA process. As with all of our various ongoing EAs, the One River Master Plan EA would integrate First Nations engagement at all phases of the EA process.

## CONCLUSION

The provincial *Environmental Assessment Act* plays a major role in every infrastructure project considered by a municipality. As first discussed in the March 8th report to Civic Works and as revised based on the comments provided by Council members and the public, it is suggested that the City Administration be directed to undertake the revised One River EA Master Plan as outlined in this report.

Based on the direction of Council, staff will assemble public input and develop the terms of reference for a One River Master Plan EA. In developing the terms of reference, staff will incorporate the comments and input of key stakeholders including:

- The Public
- Committee and Council
- First Nations
- London Community Foundation
- 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.

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

**Next Steps**

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

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| PREPARED BY: | PREPARED BY: |
|---|---|
| | |
| **TOM COPELAND, P. ENG.<br>DIVISION MANAGER, WASTEWATER & DRAINAGE ENGINEERING** | **SCOTT MATHERS P.ENG. MPA<br>DIVISION MANAGER, STORMWATER ENGINEERING** |
| **SUBMITTED BY:** | **RECOMMENDED BY:** |
| | |
| **JOHN LUCAS, P. ENG.<br>DIRECTOR, WATER AND WASTEWATER** | **JOHN BRAAM, P.ENG.<br>MANAGING DIRECTOR, ENVIRONMENTAL & ENGINEERING SERVICES & CITY ENGINEER** |

Attach: Appendix ‘A’: MOECC Letter
Appendix ‘B’: One River Master Plan EA Approach
Appendix ‘C’: Municipal Class Environmental Assessment Process: An Introduction

cc. G. Belch
J. Fleming
A. Zuidema

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## Appendix 'A': MOECC Letter

Ministry of the Environment and Climate Change

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Ministère de l'Environnement et de l'Action en matière de changement climatique

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Ontario

March 16th, 2016

City of London
300 Dufferin Avenue
PO Box 5035
London Ontario
N6A 4L9

Attention: Mr. John Braam, P. Eng.
Managing Director, Environmental & Engineering Services & City Engineer

**Re: Environmental Assessment and Master Planning**

Dear Mr. Braam:

This letter is a follow-up to your teleconference of March 15th, 2016 with staff of this Ministry's Southwestern Region Technical Support Section. I understand the discussion that took place focused on environmental planning based on project-specific Class Environmental Assessments, in contrast to environmental assessment planning through the preparation of a Master Plan.

The Municipal Engineers Association Municipal Class EA (MEAMCEA) is a proponent driven self-assessment process. The MEAMCEA states that it is inappropriate for proponents to reduce their responsibility under the Environmental Assessment Act by breaking up or piecemealing a larger project into smaller component parts, with each part addressed separately.

In all situations where the Class EA process is applicable to a project, it is the responsibility of the proponent to ensure that the planning process as set out in the aforementioned Municipal Class EA document is undertaken. If the City of London is of the opinion that proposed projects in a given study area are environmentally connected or interrelated, environmental planning through the Master Plan process, rather than project specific environmental planning, should be considered.

It is recognized, that in many cases, it is beneficial to begin the planning process by considering a group of projects 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 are long range plans which integrate infrastructure requirements for existing and future land use with environmental assessment planning principles.

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Master Plans build upon the analysis and detailed policies developed through municipal Official Plans. They are developed through a stakeholder consultation process that involves consultation with the public, government technical agencies, other municipalities, and First Nations. A Master Plan can provide the basis for carrying out follow-on EA studies of the specific components, including the problem and/or opportunity being addressed, and the range of alternatives being considered. In cases where the proponent has determined that there are other possible projects that have common elements such as geography or function, this overall planning approach recognizes that there are benefits to the process when comprehensive plans are undertaken. Master planning provides a municipality with a broad framework through which the need and justification for specific projects can be established. Please let me know if you would like more information.

Yours truly,

Dan McDonald
Technical Support Manager
Ministry of the Environment & Climate Change
Southwestern Region
(519) 873-5004

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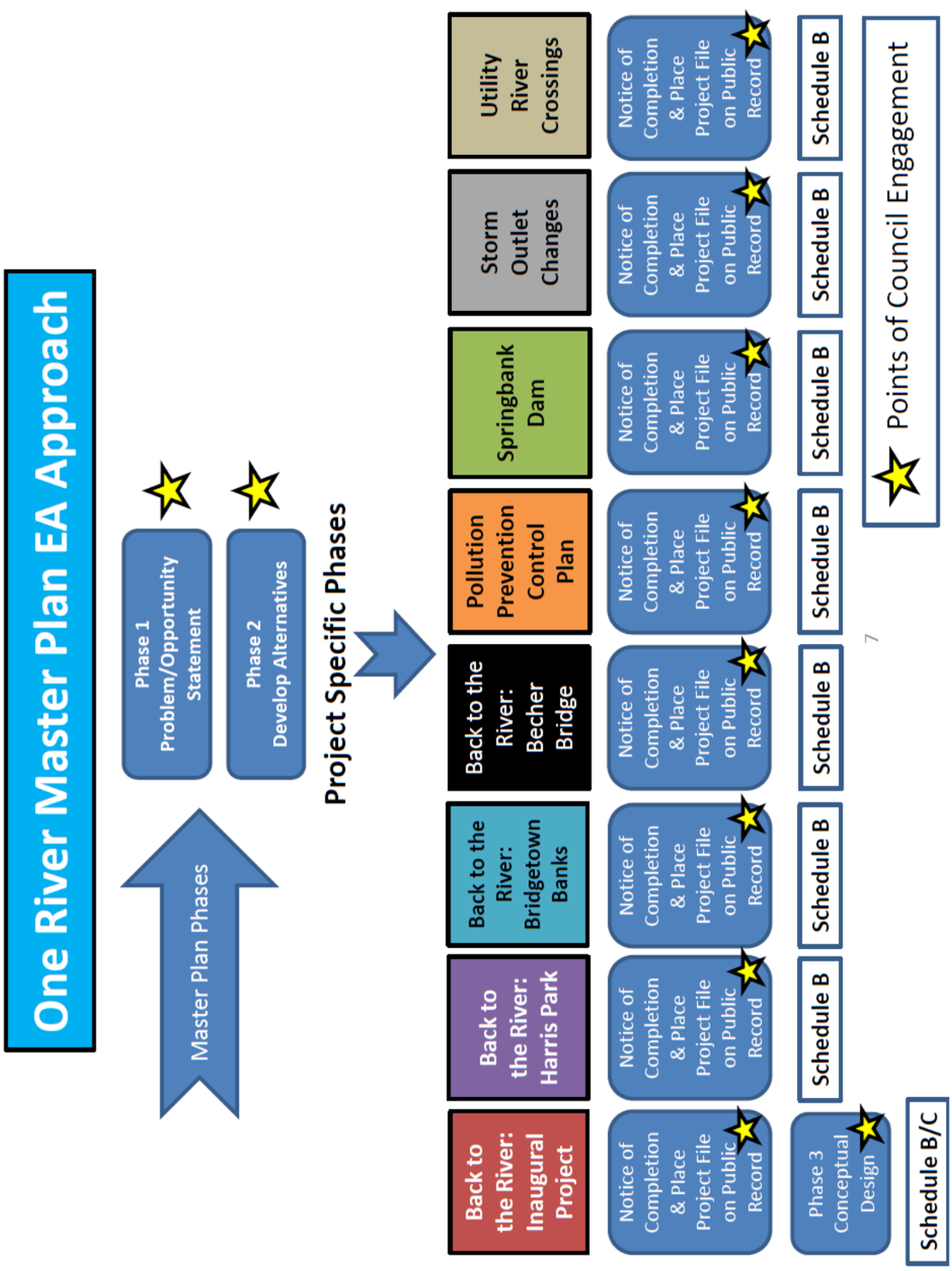
# One River Master Plan EA Approach



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**APPENDIX 'C'**

**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 EAs 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.

***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+.

***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.

***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.

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## 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.

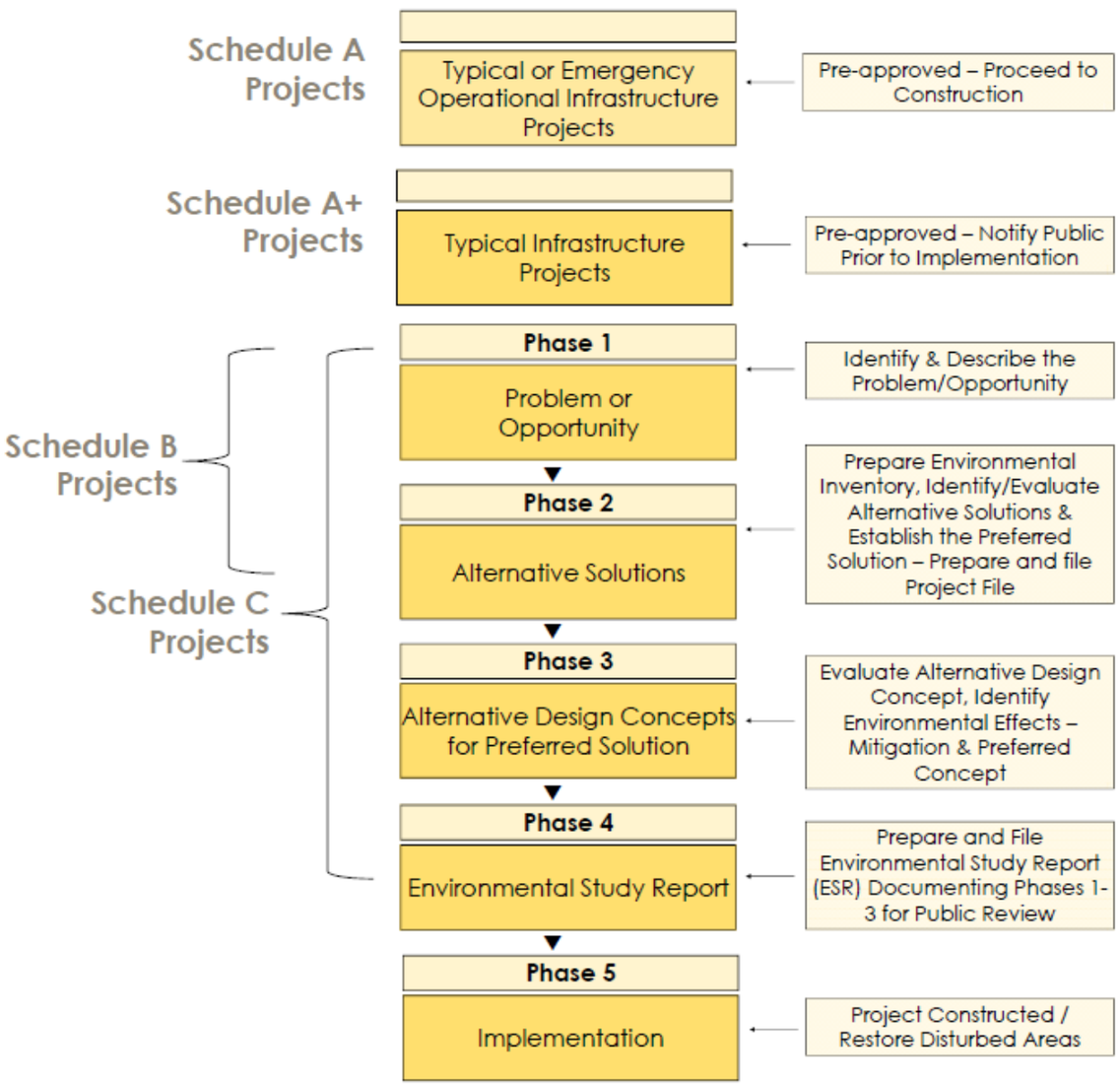


Figure 2. Municipal Class EA process simplified figure.

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.

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 that can be considered at the implementation stage.

**Notice of Completion and Part II Order**

To complete the Schedule B and Schedule C processes, a Notice of Completion must be submitted to review agencies and the public for a period of at least 30 calendar days to allow for comment and input. The Notice shall include notification of the provision to request a Part II Order. Members of the public and review agencies may request the Minister of Environment and Climate Change to require a proponent to comply with Part II of the EA Act (which addresses individual EAs), before proceeding with a proposed undertaking. This is what is known as a “Part II Order”. The Minister or delegate determines whether or not this is necessary with the Minister’s decision being final. If the Minister receives no request for an Order within the review period, the proponent may proceed with construction of the project.