

Appendix 'A'

One River Master Plan  
Environmental Assessment  
Phase II Stage I Report

Executive Summary

# Executive Summary

## Introduction

The overall purpose of the One River Master Plan Environmental Assessment (EA) is to develop a comprehensive strategy, through engagement with First Nations and Métis, and in consultation with the public, and agency stakeholders, which identifies and describes various enhancement projects within the One River study area. These projects will represent both infrastructure needs and the community's recreational and ecological vision for the Thames River in the City. As part of the EA process, findings from other studies, plans, and projects will be taken into consideration in selecting a preferred strategy based on their net natural, social/cultural, and technical/economic impacts.

This report presents the One River EA Stage 1 findings and recommendations with respect to assessing and selecting the preferred option for the Springbank Dam. Alternative strategies for river management in the study area will then be identified and evaluated in detail during Stage 2 of the EA process in order to select a preferred overall river management strategy.

## One River EA Problem/Opportunity Statement

The Problem/Opportunity Statement for an EA is a clear, concise description of the issue(s) that need to be considered as part of an EA process. The ultimate goal of an EA is to deliver an outcome that addresses and resolves the problem/opportunity statement. Based on early stakeholder engagement and background information, a draft One River EA Problem/Opportunity Statement has been prepared, which recognizes the collective responsibility of all stakeholders in maintaining and enhancing these *"shared natural, cultural, recreational and aesthetic resources"*. Through the public consultative process carried out in Stage 1 and through endorsement by the study Steering Committee the EA Problem/Opportunity Statement (Phase 1 of the Class EA process) has been confirmed.

The detailed problem/opportunity statement that has been defined is as follows:

***"The river that flows through London's downtown has many names:***

- ***Deshkan Ziibiing (known to the Anishnaabeg and Lenape of the Great Lakes);***
- ***Kahwy^hatati (ONYOTA:KA); and,***
- ***The Thames (John Graves Simcoe)***

***This river is both our inheritance and our living legacy. It is our collective responsibility to maintain and enhance this shared natural, cultural, recreational and aesthetic resource. The One River Master Plan Environmental Assessment will consider the area historically influenced by the Springbank Dam and will provide a plan that coordinates critical infrastructure projects in ways that improve the overall health of the river, identifies and creates an understanding of potential impacts these projects may have on downstream communities, species at risk and/or endangered species and where possible avoids them and respects the vision of Back to the River's "The Ribbon of the Thames" concept plan. This study, in the context of many other ongoing initiatives, will preserve for future generations this valuable resource and allow people of all abilities to enjoy and access this designated Canadian Heritage River."***

The above statement was developed based on a review of the information provided during the various stakeholder engagement sessions held in 2016, as well as the background information available, the study objectives, and the input from the March 8, 2016 public meeting. This statement has also been endorsed by City Council.

## Study Area

The Thames River, which flows through the City of London, is one of the largest river systems in Southern Ontario. The study area is shown in Figure ES-1. The North and South Branches of the Thames river converge near the City's downtown area at a location commonly referred to as "the Forks". The Thames River at the Forks drains an area of over 3,000 km<sup>2</sup>. The Thames River was recognized as Canadian Heritage River in 2000, and is acknowledged to be a river of great natural, cultural, and recreational importance.

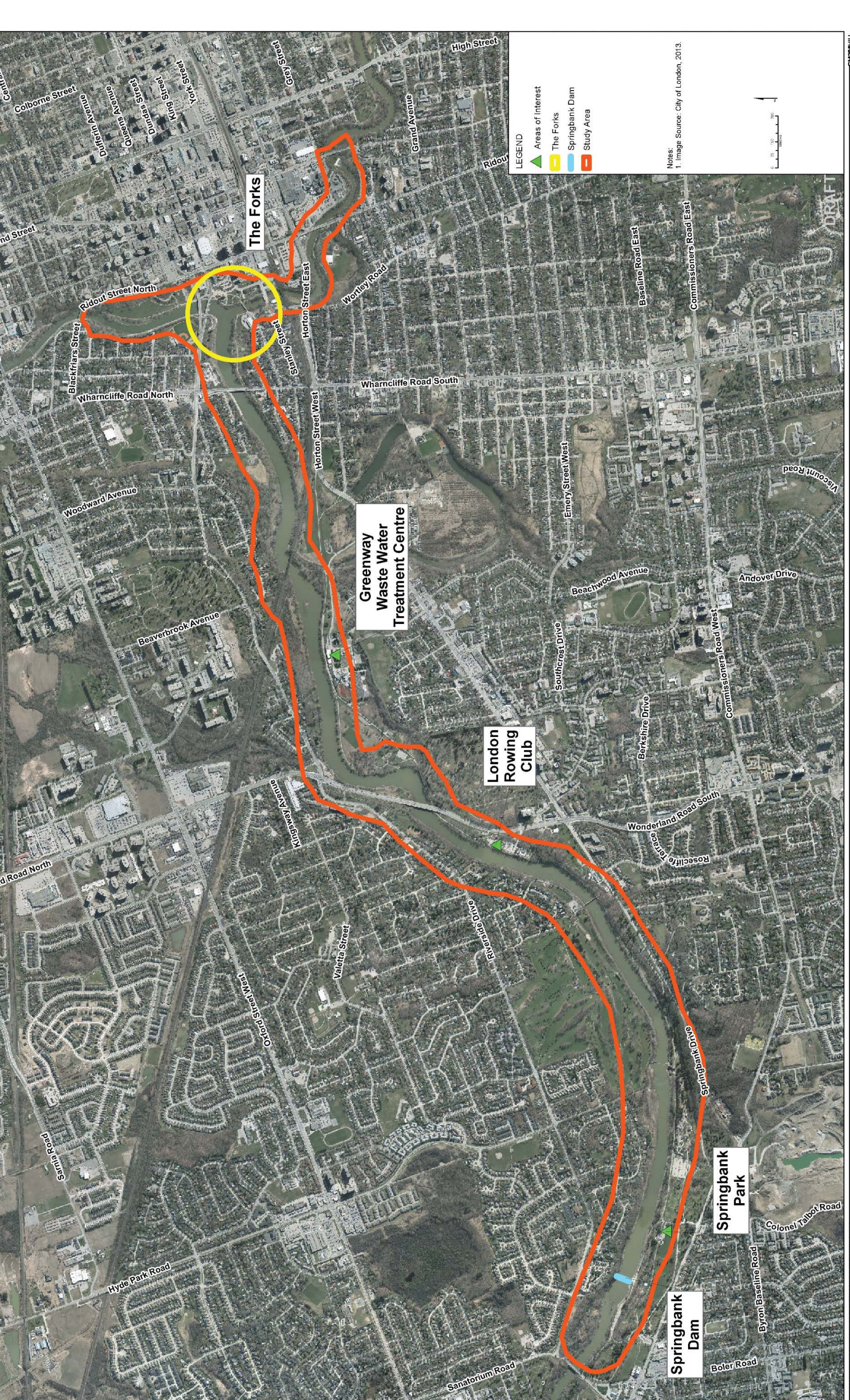
## Natural Environment

The natural environment of the Thames River can be best described as a truly unique system known not only for its ability to sustain a great variety of aquatic species, but also for its biological diversity that attracts various terrestrial wildlife species. The Thames River is known as the only true Carolinian River in Canada, and is one of the main reasons that many species at risk and Special Concern species are potentially occurring upstream of the Springbank Dam and within the Thames River. Accordingly, this unique setting hosts species whose northern ranges are limited or non-existent in other parts of Ontario and Canada. The steep forested valleys and wide, shallow watercourse provides areas for many species occupy, migrate and interact within the system.

Aquatic habitat upstream of the dam has historically been impacted by the operation of the Springbank dam which resulted in backwater upstream of the dam for several kilometers, creating a lentic (still water) ecosystem. This low energy environment limited sediment movement which, in turn, resulted in a more uniform habitat for aquatic life. Since the non-operation of the Dam, the river and riparian corridor has continued to diversify following the new flow and sediment regimes, trending toward a new dynamic equilibrium. The riparian corridor has been expanding and creating a larger functional habitat along the channel margins. Vegetation establishment along the banks have developed into dense shrub growths, creating a littoral zone in areas that were formerly submerged and bordered by retaining walls and dykes.

Although the Thames River flows through urban and rural agricultural lands and is largely a warm water, flow controlled system, its southerly location within the Carolinian zone provides habitat for Species at Risk (SAR) whose ranges are restricted and endemic to Southwestern Ontario. A review of existing information and background studies found over 30 species at risk listed as Endangered, Threatened, or Special Concern under SARA and/or the ESA in the area of Springbank Dam or upstream. Many of these species at risk have benefited from the free-flowing system that has occurred over the past 10 years and will continue to inhabit and migrate freely through the corridor.

Water quality parameters were also examined as part of the assessment of the natural environment. These parameters included total suspended solids (TSS) and total phosphorus (TP). TSS are made up of organic materials such as algae and inorganic particles such as sand and silt. TSS made up of sands and silt are normally the result of erosion and runoff of stormwater. TP is a nutrient that normally enters waterways through surface runoff during rainfall events and municipal wastewater discharges. The findings of the water quality analysis completed for the One River EA determined that TP and TSS levels were higher with the dam in place than during the period when the dam was not operational. The impacts of climate change are anticipated to increase the impacts of TSS and TP on the river.



- LEGEND**
- ▲ Areas of Interest
  - The Forks
  - Springbank Dam
  - Study Area

**Notes:**  
 1. Image Source: City of London, 2013.

0 25 50 75 100 METERS

**The Forks**

**Greenway Waste Water Treatment Centre**

**London Rowing Club**

**Springbank Park**

**Springbank Dam**

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## Social/Cultural Environment

The City of London (the City) is currently one of Ontario's largest urban centers with a variety of important cultural and environmental resources shaping the City's history and identity. The Thames Valley Corridor is widely recognized as one of the City's most important natural, cultural, recreational and aesthetic resources and, as a result, the Thames River was recognized as a Canadian Heritage River in 2000. The Thames River presence has shaped the City's development and subsequently influenced the existing land use in, and adjacent to, the Thames Valley Corridor.

Within the Thames Valley Corridor itself, land use consists of nature-oriented parkland, valleyland open space, and a system of pathways and trails. These uses provide excellent opportunities to support healthy lifestyles and promote wellness, offer affordable and unstructured recreational pursuits, increase tourism, and facilitate cultural and natural heritage appreciation. The existing developed park area provides recreational facilities including playing fields and picnic areas which serve as community and neighbourhood social areas. Specifically, the valleyland along the Thames River and its tributaries provide primary open space resources including a continuous, linear open space network of trails and pathways connecting individuals and communities, with a distributed open space system consisting of natural areas, parks, activity areas and facilities. Currently, however, there are few locations along the Thames Valley Corridor for potential interaction with the Thames River. These locations include: Springbank Pumphouse area, Riverside boat launch, rowing club, canoeing club, and fishing docks as well as several locations where informal river access has been created.

Other initiatives have been undertaken to support a revitalization of the Thames River in London. Back to the River was an international design competition initiated by London Community Foundation in partnership with the City of London and Upper Thames River Conservation Authority to revitalize a five kilometer stretch of the river radiating from the Forks in three directions: north to the intersection of Oxford Street bridge and the Thames River, west to the Wharncliffe Road Bridge and south to the intersection of the London to Port Stanley railway bridge and Thames River. The Back to the River "Ribbon of the Thames" award-winning design incorporates a number of elements that support a River vision that has been called bold and exciting. It focuses on bringing people back to the River to enjoy a significant cultural and heritage resource and engage in activities that reflect the river's beauty and cultural significance. Coordination with the Ribbon of the Thames Civitas/Stantec team has begun on how the design elements of Back to the River can be integrated into the EA evaluation and be adapted to potentially changing water levels. The design elements of the Ribbon of the Thames can be integrated into the range of water levels represented by the Springbank Dam options.

## Agency Consultation and First Nations Engagement

Consultation with stakeholders and the public, including engagement with First Nations and Metis, as well as government agencies, is an important and necessary part of the EA process. Recognizing the importance of the Thames River to the London citizens, the City of London has developed an extensive consultation and engagement process, that goes well beyond the requirements of the Municipal Engineers Association (MEA) Master Plan EA process. The goal being to consult with all interested stakeholders and First Nations communities in meaningful ways with the focus of understanding and incorporating input into the decision-making process.

### Government Agencies

As part of the Master Plan EA process, the relevant government agencies were provided a Notice of Study Commencement for the One River EA and asked to provide any comments in regard to requirements for the conduct of the EA.

In addition, specific government agencies were asked to participate in an Agency Advisory Committee. The main objective of the Agency Advisory Committee is to provide guidance and feedback to the project team on environmental, social/cultural, technical and regulatory issues and challenges that could impact the decision-making with respect to the evaluation of options for the One River EA project.

The Agency Advisory Committee is comprised of the Ministry of Environment and Climate Change (MOECC), Ministry of Natural Resources and Forestry (MNR), Upper Thames River Conservation Authority (UTRCA), Lower Thames Valley Conservation Authority (LTVCA) and the Department of Fisheries and Oceans (DFO).

Three meetings were held with the Agency Advisory Committee at key milestones during Stage 1 to receive input, guidance, and feedback. The objective was to examine the issues and challenges associated with the evaluation of options for Springbank Dam. All input was considered in the EA Stage 1 decision-making process.

## First Nations/Metis Engagement

First Nations community consultation is essential to the One River EA process. The perspectives and stories of First Nations with respect to their history, knowledge and identity through Aboriginal Traditional Knowledge, as it relates to the Thames River, are important contributions to the One River EA. First Nations peoples have a unique perspective and relationship with the lands and waters within the watershed that include assertions of Aboriginal title, Treaty rights and Aboriginal rights. First Nations have expressed concern about actions they perceive may influence title claims, as well as the health and economic well-being through impacts to drinking water, hunting, fishing, recreation and tourism. Oneida Nation of the Thames, Munsee-Delaware and Chippewas of the Thames First Nation rely on the Thames River as an indirect source of drinking water, sustenance in the way of fish, gathering and harvesting of ceremonial and medicinal plants and recreation. The watershed is an important hunting ground and is essential to archival and oral traditions, history, knowledge and identity.

Several First Nations communities have expressed interest in the One River EA, and engagement has continued throughout Stage 1 of the EA, with the project team contacting the London area First Nations and provincial Metis organizations through mail and email correspondence. One River pamphlets were sent to the D'amerind Friendship Centre (Indigenous Friendship Centre) in London to be placed visibly for visitors to see and a presentation was made at a community meeting with the Chippewa's of the Thames First Nation (COTTFN) on December 7 to receive comment and feedback on the study.

## Public Consultation

A variety of strategies and tools were used during Stage 1 to ensure widespread and accessible participation in the public engagement process. These are described below:

### Notice of Commencement

A formal notice to announce the commencement of the EA process was published in a local newspaper, *The Londoner* on July 20 and July 27.

### Surveys

A survey was developed to collect information about London Residents' current use of the Thames River, and their ideas and wishes for the future of the river. The survey asked respondents both multiple choice and open-ended questions about how they use the river, how they would like to use the river, and what changes they would like to see, if any, in or around the river. The survey was available online at the webpage, [GetInvolved.london.ca](http://GetInvolved.london.ca), and in paper format at Pop-up events.

## Stakeholder Meetings

During the implementation of Stage 1, a number of meetings were held between the City and Stakeholder groups and their comments and issues incorporated into the feedback received on the One River EA. Meetings were held with the following groups:

1. Nature London – September 29, 2017
2. Kensington Village Association – September 1, 2017
3. Thames River Keepers – September 1, 2017
4. Thames River Rally – September 19, 2017
5. Friends of the Coves – September 21, 2017
6. Thames River Anglers Association – August 25, 2017
7. Thames River Paddling Routes Project – August 25, 2017
8. London Canoe Club – August 29, 2017
9. London Rowing Club – August 29, 2017

## Pop-ups

The City of London set up booths and provided background materials on the One River EA at many of the local events during the summer. These are referred to as Pop-ups. Pop-up engagement events took place six times over the course of Stage 1 of the One River EA.

1. July 23, 12:00 pm – 6:00 pm: Inspiration Fest, Wortley Village
2. August 3, 11:00 am – 6:00 pm: Rib Fest, Victoria Park
3. August 10, 3:30 pm – 7:30 pm: River Forks Park
4. August 11, 7:00 am – 3:00 pm: Springbank Park
5. August 12, 8:00 am – 3:00 pm: Farmers Market at Western Fair Grounds
6. August 19, 11:00 am – 3:00 pm: London Tree Fest, Harris Park

## Public Information Centre #1

Public Information Centre #1 was hosted on October 18 and 19, 2017. Approximately 130 people attended each session (with 102 officially signing in for the first and 103 officially signing in for the second) for a total of 260 attendees. A number of stakeholders, including residents interest groups, and First Nations representatives provided feedback and input to the EA through correspondence and emails and is included in this stakeholder consultation summary. A total of 104 pieces of correspondence and/or emails were received about this phase of the EA.

## Webpage

The project webpage included notice of Public Information Centre #1 as well as a survey that mirrored consultation activities at the PIC that was made available until October 27, 2017.

Getinvolved.london.ca/OneRiver:

<https://getinvolved.london.ca/OneRiver/upcoming-events>

London.ca Events Calendar:

<https://www.london.ca/calendar/Pages/One-River-Public-Information-Centre.aspx>

[london.ca/calendar/Pages/One-River-Public-Information-Centre-2.aspx](https://www.london.ca/calendar/Pages/One-River-Public-Information-Centre-2.aspx)

One River EA Page:

<https://www.london.ca/residents/Environment/EAs/Pages/One-River-EA.aspx>

## Social Media

Social Media (Twitter and Facebook) was used to raise awareness of Public Information Centre #1.

## Traditional Media

Local news media coverage was used to raise awareness of the One River Master Plan EA, advertise Public Information Centre #1, and direct the public to the [getinvolved.london.ca](http://getinvolved.london.ca) webpage to learn more and complete the survey. Local coverage included CTV News London and AM980 News (CFPL AM).

## Springbank Dam Options

Three distinct options for the Springbank Dam were examined and evaluated in detail to determine the most preferred option for the dam.

### Do Nothing

The dam is kept in its current condition by completing a safety and operations review and on-going maintenance with no repurposing. Minor work would be completed to salvage appropriate dam components and obtain applicable permits.

### Free-Flowing River

The dam is decommissioned and no longer provides a water retention function. Dam decommissioning may include options for repurposing the dam structure and various river enhancements, ecological enhancements and recreational enhancements upstream. These enhancements are to work within the hydrologic and hydraulic limitations associated with lower water levels during the summer months when, otherwise, the dam may have been operated to increase water depths upstream. Work to be completed in addition to salvaging dam components and obtaining applicable permits could include removing gates to provide a live bottom to the river and stabilizing the required components and shore structures.

### Reinstating the Dam

The dam is reinstated so it provides a water retention function, operating at a similar capacity as it has previously. Dam repair or reconstruction allows for dam operation during months when higher water levels upstream would promote additional recreational opportunities associated with higher water levels. Reinstating the dam does not preclude adding options like those for repurposing the dam.

## Evaluation of Springbank Dam Options

### Evaluation Process

The evaluation process for the selection of the preferred option for the Springbank Dam follows the MEA process for Master Plan EAs. The essential nature of the process is that it captures a wide and inclusive range of criteria that provide the opportunity to examine the impact of each of the options on the issues identified through the Problem/Opportunity statement. The criteria for the examination of the three Springbank Dam options cover the range of potential impacts or changes from what is considered the “Baseline Condition”. This baseline condition is represented by the existing conditions in the river within the boundaries of the study area and the current condition of the Springbank Dam. This baseline condition has been defined through the examination of various databases on water quality and the ecological environment, consultation and engagement with the public, stakeholders and First Nations and Metis communities and recent field efforts to characterize the current condition of the river.

The various criteria that were developed for the evaluation represent aspects of the Natural Environment, Social/Cultural and Technical/Economic potential impacts. The anticipated impact of the each of the three Springbank Dam options on each of the criteria were evaluated based on a



Measure/Indicator defined under each criterion that assesses either a positive change from the existing conditions, no change from existing conditions, or a negative change from existing conditions.

## Recommended Option

The detailed options evaluation of the relative impact for each criterion in relation to the “existing condition” which is defined as the state of the current Thames River without the Springbank Dam in operation is summarized in Table ES 1. As indicated in the table, the free-flowing river (Option 2) is ranked first in terms of natural environment; it will provide the most benefits to the natural environment, by improving water quality, aquatic and terrestrial habitats, and protect and enhance species at risk.

Table ES-1. Score Summary by Category

Criteria Category	Option 1: Do Nothing	Option 2: Free-flowing River	Option 3: Reinststate the Dam
Natural Environment	3.0	4.5	1.3
Social/Cultural Environment	2.1	4.3	4.1
Technical and Economic	3.7	3.1	2.1
<b>Total</b>	<b>8.8</b>	<b>12.0</b>	<b>7.6</b>

For the social/cultural environment Option 2 – free-flowing river and Option 3 – reinstating the dam, have similar ratings; 4.3 and 4.1 out of 5, respectively. This is expected as both have similar potential to maintain and enhance many of the social and cultural resources in the study area with the exception of recreational activities. The free-flowing river tends to provide more fishing recreational activities, while reinstating the dam favours more of the boating-relating and park shoreline recreational activities.

With respect to the technical and economic factors, the do nothing rates the best (3.7 out of 5) as it is the easiest to implement at the least cost. The free-flowing river (Option 2) rates second in terms of technical and economic criteria (3.1 out of 5), followed by reinstating the dam (Option 3). Reinstating the dam would be the most difficult and challenging to implement, primarily due to the difficulties in receiving permits and approvals.

Based on the overall assessment, Option 2 – Free-flowing River rates highest as it provides the most benefits and best meets the problem statement to:

- “maintain and enhance this shared natural, cultural, recreational and aesthetic resource; and
- “preserve for future generations this valuable resource and allow people of all abilities to enjoy and access this designated Canadian Heritage River.”

## Next Steps

### Environmental Assessment Process

Once the option for the Springbank dam is confirmed, alternative strategies for river management, which consist of various projects related to infrastructure and river improvements, will be developed and assessed using similar criteria as established during Stage 1. A preferred river management strategy will be selected in Stage 2 based on the benefits the projects have on the natural social/cultural, and technical and economic environment. Stakeholder consultation, including consultation and engagement with First Nations and Metis, government approval agencies, interest groups and the general public will continue in Stage 2.

## Anticipated Schedule

It is anticipated that a decision on the future of Springbank Dam will be made early in 2018. After that decision is made, the One River EA will proceed with Stage 2. Stage 2 will be carried out in late winter, spring and summer of 2018 and it is anticipated to be concluded early in the fall of 2018. Stage 2 of the One River EA will include additional gathering of background data on the various projects being considered for the river management plan, additional consultation and engagement opportunities and the evaluation and selection of the preferred strategy.