

One River Master Plan Environmental Assessment Final Report

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Prepared for

City of London

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Executive Summary

Introducing the One River Master Plan

The Thames River is one of the largest river systems in Southern Ontario and is an important natural, cultural, and recreational resource through the heart of the City of London. The Thames River was also recognized as a Canadian Heritage River in 2000 on the basis of its cultural heritage and recreational attributes. The Thames River, also known as Deshkan Ziibiing and Kahwy^hatati, has played a vital role in the City's history and will continue to be an integral part of the City's current and future culture and heritage.

In 2016, the City, with the help of the London community, agencies and First Nations, developed the Terms of Reference for a comprehensive strategy that would decide the future of the Thames River in London. This Terms of Reference was for the One River Master Plan Environmental Assessment.

Goal of the One River Master Plan

The One River Master Plan's overall goal is to develop a comprehensive implementation strategy for various projects within the One River study area. These projects will represent both infrastructure needs and the community's overall social, recreational, cultural, environmental, and economic vision for

the River. The Master Plan recommends various projects to form a basis for future planning and project implementation.

Vision of the River

As a key component of the One River Master Plan, the City again spoke with residents, First Nations, and provincial and federal agencies to develop an understanding of the diverse perspectives within the London community on the current role that the Thames River plays in their lives and what potential they saw for the future role of the Thames. Bringing these diverse perspectives together into a common vision is critical to the future of the Thames within the City.

The vision and wishes expressed by First Nations, community members, and regulatory agencies have been incorporated in every aspect of the One River Master Plan. This Master Plan represents their collective vision for the future of the Thames.

Parts of the Plan

Springbank Dam: The current Springbank Dam was constructed in 1929 to provide a water reservoir and to support recreational opportunities along the river. The dam, when operational, raised water levels in the Thames upstream of the dam to the forks of the Thames area in downtown

London and provided deeper water for recreation and access to the river. In 2000, a debris field during a heavy rainfall damaged the dam. A review of the dam condition resulted in recommendations to rehabilitate the dam to meet current safety standards. In 2008 during the testing of the new dam a failure occurred, and the dam has not operated since.

The first task of the One River Master Plan was to evaluate the options for the dam and to determine whether the dam would be re-instated or if the river would be allowed to run free.

The Forks of the Thames: In 2015 the London Community Foundation, in partnership with the Upper Thames Conservation Authority and City of London, held the "Back to the River" design competition. The purpose of the competition was to hear ideas for revitalizing the Thames River, focusing on the Forks. The competition jury members selected the "Ribbon of the Thames" as the winning design. This design includes features to encourage interaction with the Thames at the Forks including pathways and overlooks. The vision of the award-winning design was endorsed by council in 2016. The One River Master Plan evaluated different design alternatives for the "Ribbon of the Thames" and selected the preferred option among the various designs.

River Management Plan: The Thames River in London is both a natural heritage resource that provides important habitat areas for many species of wildlife and a recreational and cultural resource that has been important to the London community for over a century. The seasonal water levels throughout the Thames River corridor in London have, however, changed without the operation of the Springbank Dam. The free flowing river has seen the growth of new vegetation along the river banks and an increase in the areas of aquatic habitat that support many species of wildlife including a number that are considered "species at risk". Without the high water levels during the summer months the opportunities for recreational activities such as canoeing and kayaking have seen a decline. The objective of the River Management Plan was to examine the changes that have

occurred in the river and how those changes have impacted the role of the river in London. The ultimate goal was to develop a management plan that integrates a healthy aquatic environment with a diverse recreational experience.

The Future of the Springbank Dam

The One River Master Plan evaluated three possible futures for the Springbank Dam:

- » Do nothing,
- » Reinstatate the dam, or;
- » Allow the Thames to flow freely.

After listening to the voices of the London community, First Nations, and governing agencies a list of criteria that included technical, social/cultural, environmental and economic considerations, was used to evaluate the three options. Through this evaluation process, it was determined that the free flowing river option was preferred. This decision was endorsed by Council in January 2018.

After it was decided that the Thames River would be free flowing, the next step in the Master Plan process was to determine what this decision meant for the Springbank Dam structure. Three alternatives were developed for the Springbank Dam structure. These included:

- » Do nothing,
- » Partially remove the dam structure, or;
- » To fully remove the dam structure.

Using similar technical, social/cultural, environmental and economic criteria in considering the options the partial dam removal was selected as the preferred option.

A picture of what this alternative could look like is shown in Exhibit 1. The dam gates that now lie on the bottom of the river will be removed along with the equipment on the dam deck that once lifted the gates into position. The control room will also be removed and the dam structure will be maintained to protect it from further deterioration.

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** (ONYOTAK: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."

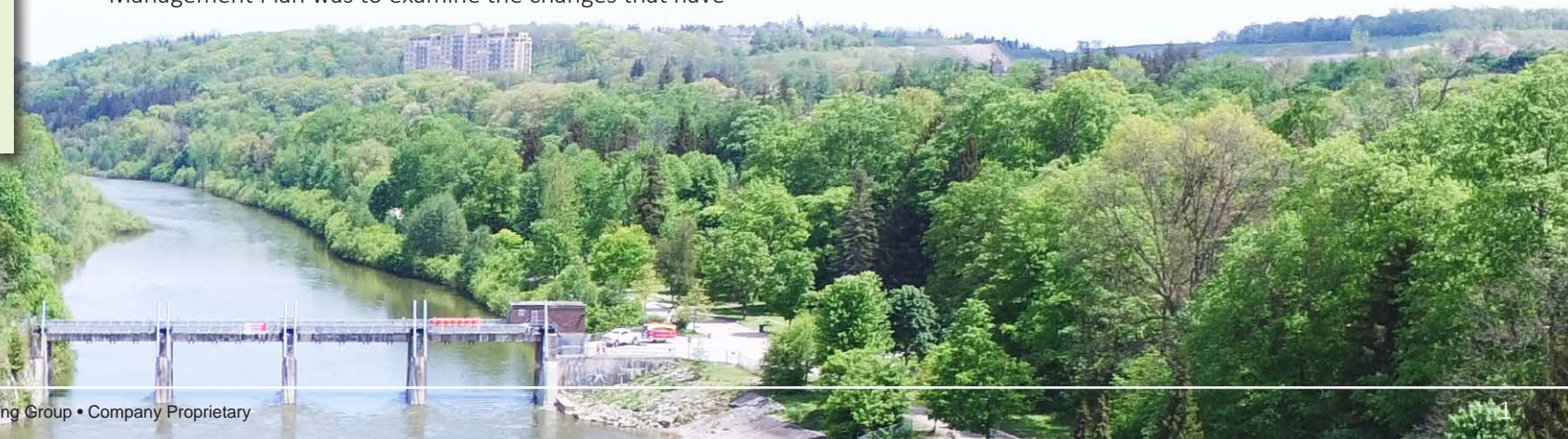




Exhibit 1. Springbank Dam Partial Dam Removal

Forks of the Thames

With the Springbank Dam's future decided, the next step in the One River Master Plan was to look at the options for the "Ribbon of the Thames" designs at the Forks of the Thames. The public consultation and engagement process was fundamental in the development of the four alternatives for the "Ribbon of the Thames" and two alternatives for terracing in Ivey Park.

The Ribbon of the Thames alternatives that were evaluated using a new set of technical, social/cultural, environmental and economic criteria were:

- » Walkway supported by piers (original design),
- » Do nothing,
- » A suspended walkway,
- » Kensington Bridge extension and lookout, and;
- » A land-based walkway.

The terrace alternatives that were evaluated included a combination of hardened surfaces like concrete terraces and softer vegetated terraces.

The evaluation selected the suspended walkway and the softer landscaped terraces as the preferred options. The selected options maintain the spirit and vision of the award-winning "Ribbon of the Thames" design while incorporating public input and more comprehensive knowledge of the ecology at the Forks. Exhibit 2 illustrates the chosen alternative for the Forks of the Thames.



Exhibit 2. Suspended Walkway with Softscape Terraces

River Management Plan

With the ultimate goal to develop a management plan that integrates a healthy aquatic environment with a diverse recreational experience, four options were developed for evaluation, these included:

- » Existing Conditions
- » Naturalized River Corridor
- » Strategic River Corridor Active Use and Access
- » Enhanced River Corridor and Active Use and Access

Again, a new focused set of technical, social/cultural, environmental and economic criteria were developed based on input from the community, First Nations, and agencies.

The evaluation process, using these criteria, selected "Strategic River Corridor Active Use and Access" as the preferred option. This option provides new places to access the Thames, improves the condition of the existing access locations, and includes restoration of the eroded areas along the river banks. This alternative balances providing improved opportunities for accessing the river while protecting the sensitive habitat areas within the river corridor.

Exhibit 3 illustrates the selected River Management Plan.

One River Strategy

The One River Strategy pulls all three components of the Master Plan into one collective vision for the future of the Thames River in the City of London. With the river free flowing, the Springbank Dam will be decommissioned. Now that the decision on the dam has been made, the opportunities to protect the sensitive habitat areas along the river and provide improvements to recreation opportunities has a clearer path. It is also possible that the opportunity to develop an award winning design at the Forks can be realized.

This integrated One River Strategy is illustrated in Exhibit 4.

Implementation Plan

The One River Master Plan puts forward a vision of the Thames River into the future. The next step is to see the One River Strategy put into action.

Springbank Dam: The Springbank Dam component of the One River Master Plan EA was completed so that the next

step to implementation is the design and construction of the selected alternative (Partial Dam Removal).

Forks of the Thames: The Forks of the Thames component of the One River Master Plan EA was completed so that the next step is the design and construction of the selected alternative (Suspended Walkway with Softscape Terraces).

River Management Plan: The River Management Plan includes several projects that will need more study before they can be built. These include projects that require further assessment to determine potential environmental and social/cultural impacts and further evaluation to develop options that meet a list of selected technical, social/cultural, environmental and economic criteria.

Projects that require further study include:

- » Pathway development
 - » Riverbank restoration
- Improvements that can be implemented as next steps include:

- » Springbank Dam Fishing and Boat Access
- » Wonderland Road/Riverside Drive Boat Access
- » Harris Park Boat Access
- » Charlie Hunt Weir Boat Access
- » Greenway Park Fishing Access
- » Ivey Park Fishing Access and Lookout
- » Springbank Gardens Boat Access
- » Lookout along Cavendish Trail in Cavendish Park



Exhibit 3. Selected River Management Plan



One River Master Plan Preferred Alternatives:

1. Partial Removal of the Springbank Dam
2. Suspended Walkway and Softscaped Terraces at the Forks of the Thames
3. Strategic River Corridor Active Use and Strategic Access to the Thames River

Exhibit 4. One River Management Strategy