



ONERIVER
Creating a Master Plan for the Thames River


One River Master Plan Environmental Assessment

Ashley M. Rammeloo, MMSc., P.Eng.

Share your vision for the future and learn more:
getinvolved.london.ca/OneRiver




One River Master Plan

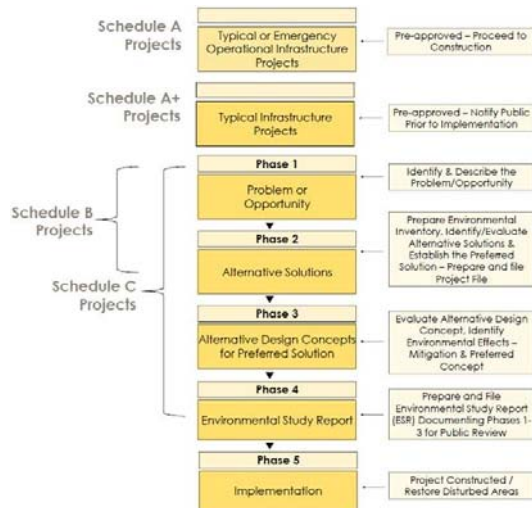


The map shows the One River Study Area, which follows the Thames River through London, Ontario. Key locations and landmarks are marked, including: Riverside Drive, Commissioners Road, Baseline Road East, Downtown London, and various parks such as Woodland Gardens, The London Bowling Club, and The Green. The One River logo is prominently displayed in the center of the map.

- Study Process
- Preferred Alternatives
- Next Steps



Environmental Assessment Process



- Required to construct major public works
- The direction of the process is set by the Problem/Opportunity Statement and Terms of Reference
- A preferred solution is selected using a transparent and objective process
- Can be amended if necessary and provides flexibility in future project implementation
- Does not bind future decisions of Council, including whether or not to construct some or all of a project



Problem/Opportunity Statement



“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.”



One River Master Plan EA



One River, Three Streams



River Management Strategy

Master Plan level



Springbank Dam Decommissioning

Schedule B EA

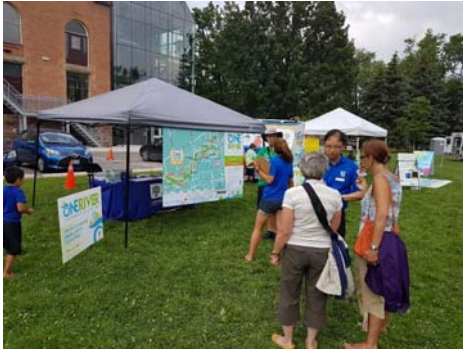


Forks of the Thames Design Elements

Schedule B EA



Public Engagement



- Pop-up events
- Online Surveys
- Three Public Information Centres
- Stakeholder meetings
- Agency Advisory Committee



First Nations Engagement



- Public Information Centres held in nearby First Nations communities at each stage of the study
- Presentations given to representatives of Walpole Island First Nation and Aamjiwnaang
- A monitor from Chippewas of the Thames First Nation was present at the Stage II Archaeological test pits



Evaluation Criteria



Natural Environment

- Water quality, geomorphology, Species at Risk, terrestrial habitat, aquatic habitat, groundwater and surface water interactions

Social/Cultural Environment

- Cultural heritage, public health & safety, boating recreation, fishing recreation, land-based recreation, shoreline accessibility, aesthetics, First Nations concerns, urban revitalization

Technical and Economic

- Flood hazard impact, carbon footprint, constructability, approvability, operations & maintenance, compatibility with existing and planned infrastructure projects, capital cost



Springbank Dam Alternatives



- **Do Nothing**
Dam is left as-is
- **Partial Removal**
Some components, including the steel gates are removed. Cannot function as a dam. Could be repurposed.
- **Full Removal**
Dam is completely removed including the concrete superstructure



Recommended: Partial Removal

- Opportunity to mitigate some of the environmental impacts of the dam structure through removal of gates
- Includes shoreline remediation
- Potential to repurpose the structure for its remaining life
- Cost is compatible with existing budget (\$1M - \$4M)
- Long term removal plan can be included in future budgets



Back to the River: Forks of the Thames



Forks of the Thames Alternatives



Forks of the Thames Design Preferred Alternative





River Management Strategies

- Alternative 1: Do Nothing; Existing Conditions Remain
- Alternative 2: Naturalize River Corridor
- Alternative 3: Strategic Access
- Alternative 4: Enhanced River Corridor Active Use and Access



Recommended: Alternative 3



Recommendations for Implementation



- Some projects can proceed with little or no further study work including improving existing boat and fishing access points, removal of invasive species, and repair of existing storm sewer outlets
- Some projects would require Schedule B EA work, such as new access points, bank stabilization, and erosion control.



Next Steps – EA Process



- Notice of Completion
- 30 Day Public Review Period
- Submission to Ministry of Environment, Conservation, and Parks for Minister Approval



Next Steps – Individual Projects



Springbank Dam

- Consultant assignment for detailed removals plan, tender, and construction

Forks of the Thames

- To be considered as part of the multi-year budget; all components ready to move to detailed design as per Council direction

River Management Strategies

- Projects that fall under existing programs and funding may proceed to Schedule B EA work, or design and construction
- Projects that require new funding to be considered through multi-year budget process



Questions?



Springbank Dam Scoring



Criteria Category	1: Do Nothing	2: Partial Removal	3: Full Removal
Natural Environment	2.8	3.7	4.8
Social/Cultural Environment	3.0	4.1	3.9
Technical and Economic	4.3	4.2	2.7
Total	3.4	4.0	3.8



Springbank Dam Cost Estimates



Do Nothing

Basic repairs required for safety \$408,000

Partial Removal

Basic repairs; removal of hydraulics, gates, controls building, and pumps; shoreline remediation \$2,236,000

Full Removal

\$5,613,000





Forks of the Thames Evaluation

Criteria Category	Natural Environment	Social/Cultural Environment	Technical and Economic	Total Score
Do Nothing	2.7	2.3	3.7	2.9
1: Walkway with Piers in River	1.7	3.6	2.0	2.4
2: Suspended Walkway	2.7	4.0	2.7	3.1
3: Bridge Extension	3.0	2.9	2.2	2.7
4: Land Based Walkway	2.7	3.1	2.8	2.9
1: Terrace - Hardscape	2.0	4.1	2.3	2.8
2: Terrace - Softscape	3.2	4.0	3.1	3.4



Forks of the Thames – Cost Estimate



Order of Magnitude Cost Analysis

(Preliminary Design Estimate)

	Low Range	High Range
Ribbon Overlook	\$ 4,870,000	
General Requirements 15%	\$ 730,000	
Construction Fee 5%	\$ 245,000	
Consultant Fees 15%	\$ 730,000	
Estimating Contingency 15%	\$ 730,000	
Contingency Allowance 20%	\$ 0	\$ 970,000
Ribbon Overlook Total	\$ 7,300,000	\$ 8,270,000
Site Development		
Demolition	\$ 17,000	
Excavation, Earthwork, Grading	\$ 244,300	
Paving	\$ 301,290	
Walls and Steps	\$ 970,250	
Planting/ slope stabilization	\$ 74,200	
Site Furnishings	\$ 177,500	
Misc. Site Development allowance	\$ 100,000	
Protect in Place: Sewers, Trees, Lawn, One Dundas	\$ 97,000	
Irrigation allowance	\$ 100,000	
Lighting allowance	\$ 205,000	
Site Development Sub-Total	\$ 2,431,500	
General Requirements 15%	\$ 364,700	
Construction Fee 5%	\$ 121,500	
Consultant Fees 15%	\$ 364,700	
Estimating Contingency 15%	\$ 364,700	
Contingency Allowance 20%	\$ 0	\$ 486,300
Site Development Total	\$ 3,647,100	\$ 4,133,400



View From Upper Plaza



Table 1: Score Summary by Category – River Management

Evaluation of Alternatives



Criteria Category	1: Existing Conditions	2: Naturalized River Corridor	3: Strategic Use and Access	4: Enhanced Use and Access
Natural Environment	2.7	4.5	3.8	2.2
Social/Cultural Environment	1.9	3.1	4.3	4.4
Technical and Economic	3.3	3.4	3.4	2.9
Total Score	2.6	3.7	3.8	3.1



Archaeological Assessments



- Stage II assessments completed including hand dug test pits at both sites; COTTFN monitor was on site
- Indigenous artifacts were recovered from a location near Springbank Dam. A Stage 3 site specific assessment will be required. Mitigation measures will be in place during construction.
- There were no findings at the Forks. Construction monitoring will be required if excavation exceeds certain depths.



