



**MASTER PLAN REPORT**  
**MOHAWK LAKE AND MOHAWK CANAL CLEANUP**  
**AND REHABILITATION PROJECT**  
**DECEMBER 2019**  
**UPDATED IN JUNE 2020**  
**-FINAL-**



**wood.**



## Master Plan Report

Mohawk Lake and Mohawk Canal Functional Master Drainage  
and Restoration Study  
Brantford, Ontario  
Project # TPB188172

Prepared for:

**City of Brantford**

100 Wellington Square, Brantford, Ontario N3T 5R7

December 20, 2019  
Updated in June 2020

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## Prepared for:

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100 Wellington Square, Brantford, Ontario N3T 5R7

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**December 20, 2019**

**Updated in June 2020**

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## 1.0 Introduction

### 1.1 Project Background

The Mohawk Lake and Mohawk Canal and the surrounding parklands are located in the southeast sector of City of Brantford (the City), proximate to the downtown; the subject lands drain to the Grand River (Figure 1). Mohawk Lake was constructed in the 1800s as part of the canal system to provide access for barges traveling through Brantford and to enable the barges to turn around. In the early 1900s, the lake and the surrounding parkland provided the community with recreational opportunities to residents city-wide and continues to offer valuable natural heritage for the City.

In the 1980s, the inflow from the Grand River diverting flow to the canal was disconnected with the removal of a dam. Years of municipal stormwater drainage and a legacy of industrial discharges have resulted in the deterioration of the lake. Industrial discharges have been largely discontinued for a number of years and recently upstream brownfield remediation has largely eliminated the potential for migration of contaminants from former industrial lands adjacent to the lake and canal.

The lake surface area is about 13 hectares; the water depths range from 1 to 3 meters. The Mohawk Lake subwatershed area (directly to Mohawk Lake and Canal; not including downstream areas) is approximately 873 hectares. The lake is primarily replenished by stormwater coming from municipal storm sewers that service the drainage of roadways, parking areas, and individual properties via catch basins, connected directly to the area's storm sewers. The lake water quality is largely determined by the quality of the incoming urban runoff. The land use within the subwatershed is primarily low to medium density residential, commercial and some industrial properties.

In 2017, the City, with financial support from the Federal Government, approved a plan to initiate the Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project (the Project) to improve the environmental quality of Mohawk Lake and Mohawk Canal and provide enhanced recreational, fish and wildlife conditions through improved water quality. This rehabilitation project consists of four (4) phases (Figure 2):

- Characterization Study (largely Completed Oct, 2019) – Phase 1;
- Subwatershed Stormwater Plan – Phase 2 (this project);
- Environmental Assessment and Master Plan - Phase 2 (this project); and
- Design & Construction of the Cleanup and Remedial Work (future phase).

Wood Environment & Infrastructure Solutions, a Division of Wood Canada Limited (Wood) was retained by the City to complete Subwatershed Stormwater Plan, Environmental Assessment and Master Plan components of the Project.

### 1.2 Master Plan Report Outline

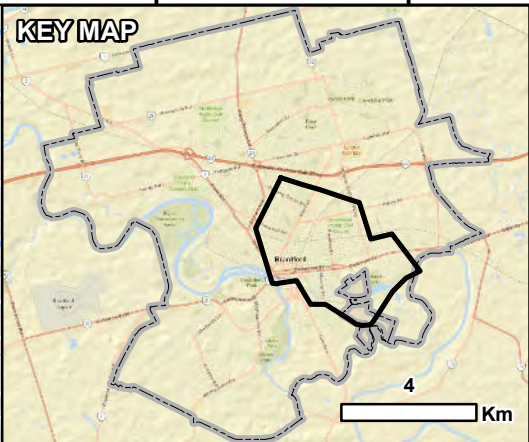
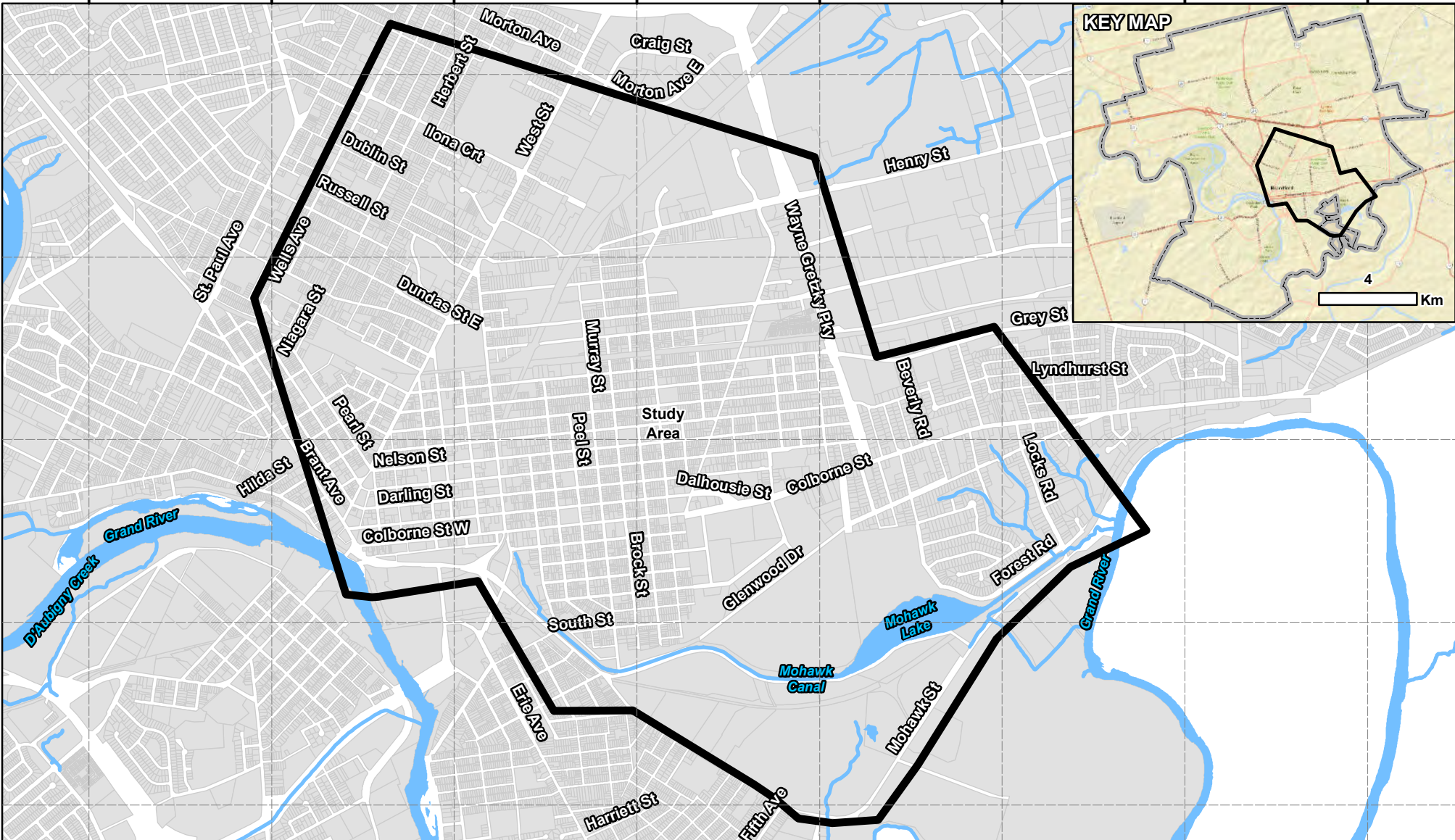
This Master Plan Report is built upon the analyses and evaluation outcomes of the Subwatershed Study Stormwater Plan, and the Environmental Assessment, and guided, in terms of Community Vision and preferences for recreational use, by the outcomes of

the community and agency engagement program conducted over the course of this study. This report is organized as follows:

- **Section 1.0** introduces the project, including background and the context of the project;
- **Section 2.0** summarizes the environmental assessment process, including the federal and provincial environmental assessment requirements;
- **Section 3.0** provides a summary of the engagement activities undertaken for the Project;
- **Section 4.0** defines a revised and updated Vision Statement developed based on previous vision statements and feedback received through engagement during this project.
- **Section 5.0** outlines relevant regulations and policies related to stormwater quantity and quality, and environmental systems management that were considered for guidance;
- **Section 6.0** describes the Preliminary Preferred Remedial Alternatives; and
- **Section 7.0** summarizes the requirements for implementing the Project, including mitigation and monitoring measures, and long term community engagement plan.







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477500

P:\2018\Projects\_Other\TPB188172\_Mohawk lake & Canal\11\_GIS\MXD\Study\_Area\_Map\_2.mxd

- LEGEND**
-  Study Area
  -  Watercourse
  -  Waterbody
  -  Property Parcel

NOTES:  
 - Regulation Limit from GRCA Open Data, 2019  
 - Key Map topography from ESRI



**Mohawk Lake and Mohawk Canal Functional Master Drainage and Restoration Study**

**Study Area Map**



Datum: NAD83  
 Projection: UTM Zone 17N



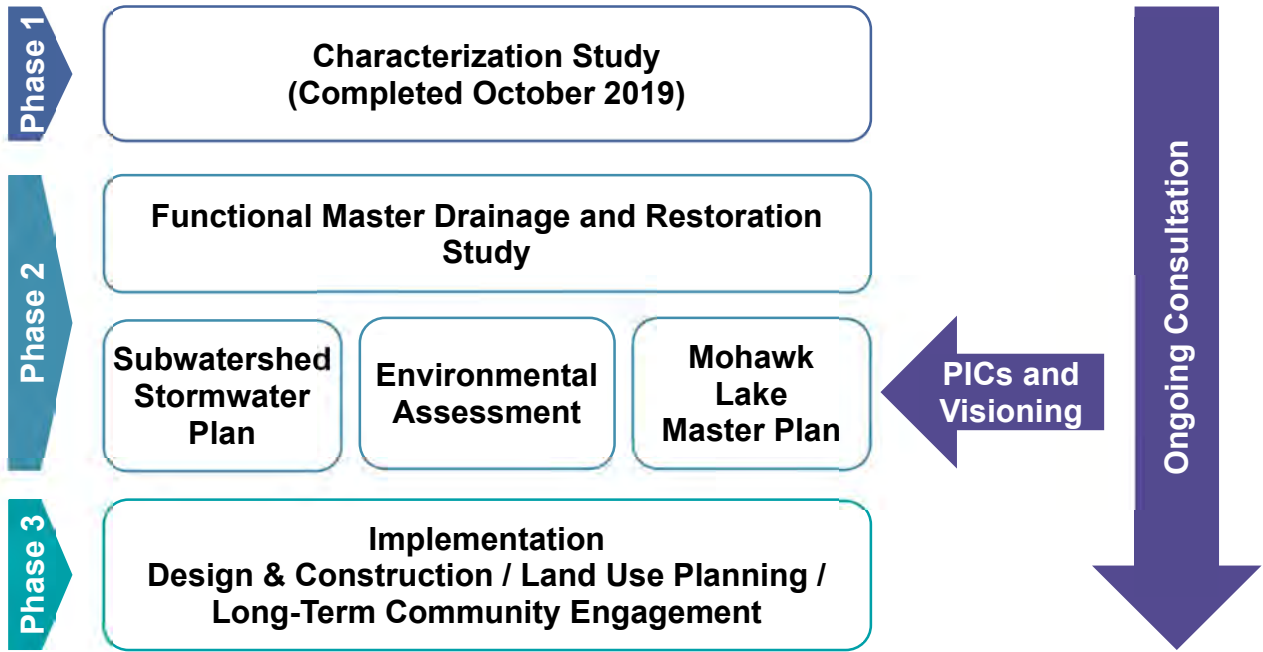
PROJECT N<sup>o</sup>: TPB188172

DRAWING: 1

SCALE: 1:30,000

DATE: December 2019

**Figure 2: Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project**



## 2.0 Environmental Assessment Process

### 2.1 Federal Environmental Assessment Requirements

#### 2.1.1 Federal Economic Development Agency

##### 2.1.1.1 Historical Context

In May 2008, the Federal Economic Development Agency for Southern Ontario provided an agreement to the City to supply additional funds to support the clean-up and rehabilitation Mohawk Lake and Mohawk Canal (the Funding Agreement). At that time, any project receiving federal funding was “triggered” to automatically adhere to a federal level environmental assessment process, as stipulated under the *Canadian Environmental Assessment Act, 1992*.

##### 2.1.1.2 Current Context

The Funding Agreement has been amended three times since 2012. These amendments were made in November 2012, March 2017 and May 2017. A stipulation of the amended Funding Agreement is for the City to demonstrate due diligence with respect to any requirements under the *Canadian Environmental Assessment Act, 2012* (CEAA 2012)<sup>1</sup>.

#### 2.1.2 Canadian Environmental Assessment Act, 2012

On February 22, 2019, the City and Wood provided a letter to the Canadian Environmental Assessment Agency (CEA Agency) regional office containing the Notice of Commencement on Mohawk Lake and Mohawk Canal Clean Up and Rehabilitation Project - Functional Master Drainage and Restoration Study (Appendix A). To further support the CEA Agency in its determination, it was noted that federal funding was a part of the City’s endeavor and a map was included with the Notice to set out, generally, the geographic limits of the area under study.

On March 20, 2019 the CEA Agency regional office responded to the Notice of Commencement and provided further web-based guidance to review according to CEAA 2012, including (Appendix A):

- The prescribed Regulations (<https://www.canada.ca/en/environmental-assessment-agency/corporate/actsregulations/legislation-regulations.html>); and
- To check section 1 of the Regulations which details federally designated migratory bird sanctuaries or wildlife areas.

Furthermore, the CEA Agency indicated that based on the information provided to it, this project did not appear to be described in the Regulations. The CEA Agency indicated it wanted to be removed from the project’s distribution list if by a process of

---

<sup>1</sup> On August 28, 2019, the Federal *Impact Assessment Act* came into force. It repealed the Canadian Environmental Assessment Act, 2012 and created the new Impact Assessment Agency of Canada. This Study has proceeded under the terms of the Funding Agreement, which references CEAA 2012.

self-determination, the City does not consider the project to fall under the requirements of CEAA 2012 (Appendix A).

### 2.1.2.1 Determination of Requirements under Canadian Environmental Assessment Act, 2012

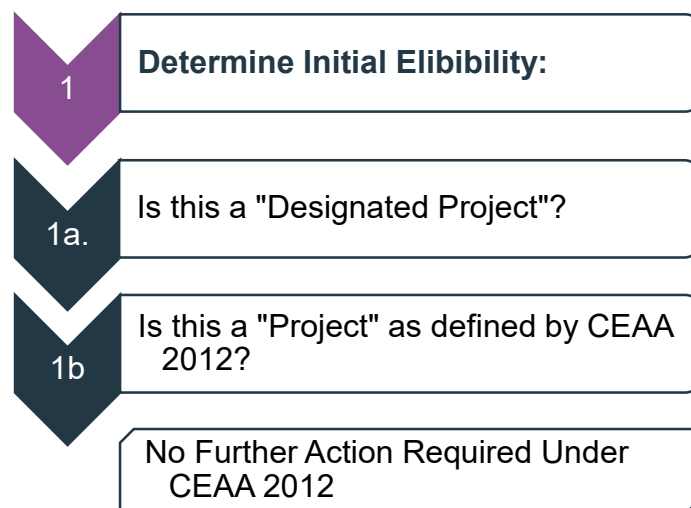
On behalf of the City, Wood has reviewed the anticipated scope of physical works and activities that may be prescribed to implement the Project to improve environmental conditions in the study area. It is also noted that the Phase 2 Study (ref. Figure 2) is applying the Municipal Class Environmental Assessment (Class EA) process, and as such, it is unlikely to have significant adverse environmental effects.

As shown on Figure 3, the Federal EA Determination Approach Flow Chart has been applied to the Project to determine initial eligibility under CEAA 2012 (Canadian Environmental Assessment Agency, 2016). In making a determination as to the applicability of CEAA 2012 to the Project, the Project Team gave due consideration to the following:

*Question 1a - Is the study likely to prescribe works or activities that are Designated Physical Activities listed in the CEAA 2012 Regulations list?*

*Question 1b - Does the Study Area, likely to be affected directly or indirectly by prescribed works or activities, encompass federal lands, wildlife areas or migratory bird sanctuaries or as described in the section 1 of Regulations list?*

**Figure 3: Federal Environmental Assessment Determination Approach Flow Chart**



It was concluded that with respect to *Question 1a*, the Project is not comprised of physical works or activities covered under Regulations Designating Physical Activities (SOR/2012-147). Further that for *Question 1b*, it is not a “Project” as defined under CEAA 2012; that being a *physical activity* in relation to a *physical work* located on *federal lands*. There are federal lands, as defined by the Act that lie within the broader study area. However, the determination by the City, at this stage of the study, is that the

preferred solution to be implemented, will not meet the definition of a Project as defined under CEAA 2012.

Given the foregoing findings based on due diligence considerations by the Project Team, it is self-determined that an EA is not required under the scope of CEAA 2012. This finding is also congruent with the response letter from the CEA Agency regional office (Appendix A).

## 2.2 Ontario Environmental Assessment Requirements

A variety of project activities carried out by the City are subject to the requirements of the Ontario *Environmental Assessment Act*. As summarized in the Municipal Class EA (ref. Municipal Engineers Association's Municipal Class Environmental Assessment October 2000, as amended in 2007, 2011 & 2015), the purpose of the Ontario *Environmental Assessment Act* is "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". Environment is applied broadly and includes the natural, social, cultural, built and economic components. Environment Assessment (EA) is a decision-making process to promote good environmental assessment planning.

The key features are:

- Early consultation;
- Consideration of a reasonable range of alternatives;
- Assessment of environmental effects;
- Systematic evaluation of alternatives; and
- Clear documentation and traceable decision making.

There are following two basic types of EA processes:

### *Individual EA*

- requires Terms of Reference approved by the Ministry of the Environment, Conservation and Parks (MECP)
- requires that EA report be submitted to MECP for review and approval by the province

### *Class EA*

- project is approved subject to compliance with an approved Class EA process for a group or "class" of projects

The Mohawk Lake and Mohawk Canal Functional Master Drainage and Restoration Study is being carried out in accordance with the requirements of the Municipal Engineers Association's Class Environmental Assessment (October 2000, as amended in 2007, 2011 & 2015). This is an approved process under the *Ontario Environmental Assessment Act*.

### 2.2.1 Municipal Class Environmental Assessment

As described in Figure 4, the Municipal Class EA process consists of five phases that may be applied, depending on the scope of the physical works and activities being considered as a preferred solution to be implemented to address a problem or set of problems, or to respond to an opportunity or opportunities for community betterment. The Class EA process classifies projects according to their level of complexity and potential environmental impacts. These are termed “Schedules” and are summarized below (ref. Municipal Engineers Association’s Municipal Class Environmental Assessment October 2000, as amended in 2007, 2011 & 2015):

- Schedules A and A+ includes projects that involve minor modifications to existing facilities. Environmental effects of these projects are generally small; therefore, the projects are considered pre-approved.
- Schedule B includes project that involve improvements and minor expansion to existing facilities. There is a potential for some adverse environmental impacts and, therefore, the proponent is required to proceed through a screening process, including consultation with those affected. Schedule B projects are required to proceed through Phases 1, 2 and 5 of the Municipal Class EA process.
- Schedule C includes projects that involve construction of new facilities and major expansion of existing facilities. These projects proceed through the environmental assessment planning process outlined in the Municipal Class EA document. These projects are required to fulfill the requirements of all five phases of the Municipal Class EA process.

In addition, the Municipal Class EA document recognizes that, it is beneficial to undertake master planning process for a group of related projects, or an overall system, e.g. water, wastewater and/or roads network. Through this process, the need and justification for individual projects and the associated broader context, are better defined.

Master Plans are defined as long range plans which integrate infrastructure requirements for existing and future land use with environmental assessment planning principles. These plans examine an infrastructure system or a group of related projects in order to outline a framework for planning for subsequent projects. At a minimum, Master Plans address Phases 1 and 2 of the Municipal Class EA process.

There are four approaches that may be followed to complete a Master Plan process. This project followed Approach #2 of the master planning process. This approach involves the preparation of a Master Plan document at the conclusion of Phases 1 and 2 of the Municipal Class EA process where the level of investigation, consultation and documentation are sufficient to fulfil the requirements for Schedule B projects. Accordingly, the final public notice for the Master Plan could become the Notice of Completion for the Schedule B projects within it. Any Schedule C projects, however, would have to fulfil Phases 3 and 4 prior to filing an ESR(s) for public review. The Master Plan would provide the basis for future investigations for the specific Schedule C projects identified within it.

This study identified Schedule A/A+ and Schedule B projects. A list of those projects is provided in Section 9.3 of the Environmental Assessment Report prepared as part of this study.

### 2.2.1.1 Master Planning Process

As a master planning study under the Class EA, the Study must fulfill Phases 1 and 2 of the planning and design process, including the mandatory points of public contact. The EA process requirements are illustrated in Figure 5 and described more fully in the sections below:

#### 2.2.1.1.1 Phase 1 - Identify and Describe the Problem or Opportunity

Projects are initiated based on a Problem or Opportunity identified by the proponent. Factors leading to this initiation may have been identified or documented in previous studies. The problem/opportunity is refined into a clear problem and/or opportunity statement that becomes the basis of the project and defines its scope.

#### 2.2.1.1.2 Phase 2 - Alternative Planning Solutions

Using the problem or opportunity statement identified in Phase 1, a long list of methods to address this statement is developed. These alternatives are then assessed based on their potential impact to the natural, social and economic environments and the degree of harm or benefit that could occur. Following this evaluation, and consultation with agencies, stakeholders, and the public, a preferred solution(s) is identified.

Phase 2 of the Class EA also requires preparation of a physical description of the area where the project is to occur, and a general inventory of the natural, social and economic environments, which are to be considered when reviewing the effects of a project in that area. In this instance, the Phase 1 Characterization Study, and the Phase 2 Subwatershed Stormwater Plan both contribute relevant data and information to:

- describe baseline environmental conditions;
- forecast future conditions through modelling; and
- identify constraints that may;
  - limit the range and form of remedial options to be evaluated;
  - require mitigation strategies to limit impacts; or
  - affect how and when elements of the preferred solution get implemented.

#### 2.2.1.1.3 Mohawk Lake and Mohawk Canal Master Plan

As noted above, under the Municipal Class EA framework, Master Plans are long range plans which integrate infrastructure requirements for existing and future land use with environmental assessment planning principles. Approach #2 of the master planning process was followed for this study, which broadens the perspective for implementation of the preferred solution, by:

- looking beyond the infrastructure and remediation components that are the focus of the Class EA process;
- bringing in the land use and park use policy direction; and

- translating the Community Visioning exercise into actions now, and commitments for the future, including the long-term community engagement program.

#### 2.2.1.1.4 Project Filing - Project File Report

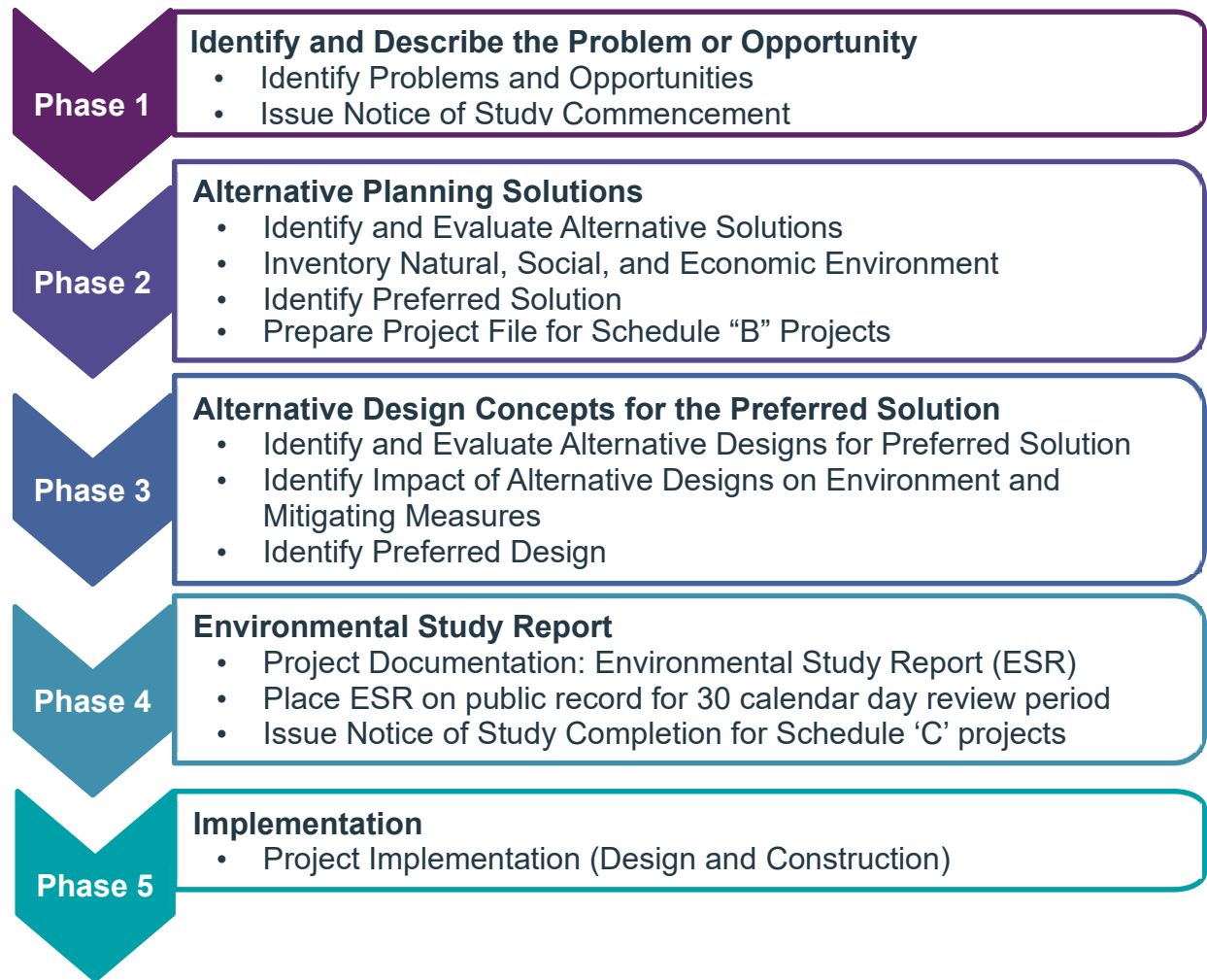
The documentation of a Master Plan process is collected in a Master Plan Project File Report. This is a chronological collection of the information (including background, environmental inventories, and alternative solutions) evaluated through the course of Phase 1 and 2 of the Class EA process. This Project File is made available to the public and review agencies for a minimum comment period of 30 days following the completion of Phase 2. The public also has the right to request a Part II Order from the Minister if they feel the identified Schedule B projects require further planning, design or documentation. Through the Part II Order process the Minister has the ability to require a higher level of review take place, or to place conditions on project implementation.

#### 2.2.1.1.5 Phase 5 - Implementation

Following the filing of the Project File Report for public review, if no Part II Order request is received or granted, then the project can proceed to Phase 5 of the Municipal Class EA process, which is the implementation stage.



**Figure 4: Municipal Class Environmental Assessment Planning and Design Process**



**Figure 5: Environmental Assessment Process Requirements for Master Plans**



### 3.0 Engagement Summary

As a part of the Project, Wood prepared a Communication and Engagement Plan to engage with the public stakeholders and Indigenous communities. The key engagement activities included the preparation and distribution of Project Notices; Public Information Centres (PICs) to share Project background and plans and seek public input; engagement with Indigenous communities; and participating in meetings with the Mohawk Lake Working Group.

#### 3.1 Notices

To inform the public and stakeholders about the Project, engagement opportunities and to gather input to inform Project planning, several notices were prepared and published in the local newspapers, posted on the City's website and mailed out directly to the key stakeholders and agencies (Refer to Appendix B for the mailing list).

The following formal public notices were prepared and published in the local newspapers:

- Notice of Study Commencement, published in *Turtle Island News* on May 8, 2019 and *Civic News* on May 30, 2019.
- Public Information Centre (PIC) Notices
  - PIC No. 1, published in the *Turtle Island News* and *Civic News* on May 29 and 30, 2019 respectively.
  - PIC No. 2, published in the *Turtle Island News* and *Civic News* on October 16 and 17, 2019, respectively.

Copies of the published notices are provided in Appendix B. Information regarding the PICs was also advertised on the City's website (<https://www.brantford.ca/en/your-government/mohawk-lake-and-mohawk-canal-cleanup-and-rehabilitation-project.aspx>).

#### 3.2 Public Engagement

As part of the Project, the City held two (2) PICs to allow the public and interested stakeholders to learn more about the Project and provide input into the Project. Both PICs were held within the Mohawk Lake Study Area at the Mohawk Park Pavilion and were organized in an open house, drop-in format with information presented on the display boards and members of the Project Team on hand to respond to the questions and gather feedback. The attendees were encouraged to browse the display boards and discuss interests with the Project representatives. Copies of the materials from both PICs are presented in Appendix B.

##### 3.2.1 Public Information Centre No. 1

The City hosted the first PIC on June 5, 2019 from 5:00 p.m. to 7:00 p.m. at the Mohawk Park Pavilion, 51 Lynnwood Drive, Brantford. The goal of this PIC was to share Project information with the interested community members, and to identify priorities and interests that should be considered in Project planning and execution. The key information exchanged during the PIC included background and status, summary of the Characterization Study, overview of existing land use of the Study Area and an outline

of the next steps. Copies of the PIC materials, including the redacted attendance record are presented in Appendix B.

Comments heard by City representatives and consultant during the PIC included:

- Interest in advancing the Project and concern with the time it has taken to reach this stage.
- Concerns relating to the Mohawk Lake District Plan (A City staff member was on hand to discuss these concerns)
- The history of Mohawk Lake and Mohawk Canal is very important and needs to be recognized in the study.

There were 22 attendees at the event who were encouraged to provide their comments on the problem and opportunity statement as well as their vision for the Mohawk Lake. A copy of the comments received on the problem and opportunity statement and visioning board is provided in Appendix B. The attendees were also provided with comment forms. The comment forms offered a method for participants to provide feedback on the Project by submitting their comments at the PIC or subsequently by mail, website or email. The deadline for comments was June 21, 2019. Six (6) comment sheets were received during the PIC and one (1) was received by email after the PIC. The comments received were reviewed by the Project team and were integrated into the next phases of Project planning. Refer to Section 3.2.3 for the summary of comments received during the PIC. All comments received are provided in Appendix B.

### 3.2.2 Public Information Centre No. 2

The City hosted a second PIC on October 23, 2019 between 5:00 pm and 7:00 pm at the Mohawk Park Pavilion, 51 Lynnwood Drive, Brantford. The purpose of this meeting was to provide an update on the Project and to share information on the evaluation criteria used to assess different management alternatives, evaluation results and identify preliminary preferred alternatives. As with the first PIC, there were a series of information display boards and the attendees were encouraged to provide their feedback. Copies of the PIC materials, including the redacted attendance record are presented in Appendix B.

Comments heard by City representatives and the consultant team during the PIC included:

- Supportive of public engagement and consultation throughout the process and hoping to be informed in the next phases as well.
- Unsupportive of preserving existing vegetation especially if vegetation is incompatible and does not fit with aesthetic.
- Mohawk Canal – trees were cut, and channels dredged in the 1980's. The plans were to dredge the lake, but it never happened.
- Some residents kayak every week and many people swim and fish (catch and release). Mostly carp found in the lake.

- Currently, there is little vegetation, lots of sediment and lots of garbage (including old cars at the bottom of the lake).
- There are five pipes that stick out from the bottom of the lake.
- Some attendees questioned the timeline and budget, stating that this can't be done. However, a more realistic plan can be doable.
- Some attendees expressed support and excitement for this plan and excitement that something may happen next year.
- Queen Elizabeth visited Brantford sometime between 1970's to 1980s, which was the last time the canal was dredged.

There were 18 attendees who signed the attendance record. Comment forms were provided to attendees. One (1) comment form was received by email on October 25, 2019. The comments received were reviewed by the Project team and were integrated into the next phases of project planning. Refer to Section 3.2.3 for the summary of comments received during the PIC.

### 3.2.3 Summary of Comments Received

Several opportunities, through the Public Information Centres (PICs) and the City's Project website, were provided to the public and other interested parties to provide their input into project planning. The comment forms received during the PICs and during the comment period are provided in Appendix B. Comments received, and the responses provided by the City and its consultant are summarized in the following table:

**Table 3-1: Summary of Comments Received**

Date	Stakeholder	Comment	Response
June 5, 2019	Public Member	Information about the number and variety of bird and wildlife species that reside in the Study Area should be shared with the public.	Natural environment information, including birds and wildlife species can be found in the Characterization study.
June 5, 2019	Public Member	Concerns were raised to include the history of Mohawk Lake and Mohawk Canal into project planning	The EA and Master Plan considers the history of Mohawk Lake and Mohawk canal. Previous studies were considered throughout various stages of the project.
June 5, 2019	Public Member	Concerns were raised by numerous members of the public about the "over-development" of the	The purpose of this project is to improve the water quality of Mohawk Lake and Mohawk Canal. The infrastructure

**Table 3-1: Summary of Comments Received**

Date	Stakeholder	Comment	Response
		Mohawk Lake. They prefer not to change too much.	improvements are considered part of the Master Plan and will aim to maintain the natural landscape as much as possible.
June 5, 2019	Public Member	The lake is wildlife habitat and refuge and it is what makes the park such a wild, special place. Make it a somewhat more accessible but do not change the positions, wildlife has adapted to this place as it is now.	The purpose of this project is to improve the water quality, which will improve the aquatic habitat and refuge. The project will enhance the natural landscape of Mohawk Park, which will aim to protect the existing terrestrial wildlife habitat.
June 5, 2019	Public Member	Concerns were raised about the sustainability of fish, wildlife, birds, and vegetation in the area. The area is a wildlife habitat for dozens of species of amphibians, reptiles, birds and mammals.	The purpose of this project is to improve the water quality, which will improve the aquatic habitat and refuge. The project will enhance the natural landscape of Mohawk Park, which will aim to protect the existing terrestrial wildlife habitat.
October 23, 2019	Public Member	Suggestions were made to develop a hiking path around the Lake to increase its usage.	The City will take into consideration the suggestion to develop hiking paths within Mohawk Park.
October 23, 2019	Public Member	It was recommended to use other communication methods other than Brantford Expositor.	During future phases, other communication methods will be considered.
October 23, 2019	Public Member	Emphasis should be placed on the clean-up of the lake i.e., removal of garbage from the lake.	The purpose of this project is to improve the water quality, which will involve the removal of any waste found in the lake.

**Table 3-1: Summary of Comments Received**

Date	Stakeholder	Comment	Response
October 23, 2019	Public Member	Portion of the lake is a landfill that must be avoided.	This comment will be taken into consideration during the design phase of this project.

### 3.3 Indigenous Engagement

Early engagement with the Indigenous communities is an important part of the planning process. Through engagement with the Ministry of the Environment, Conservation and Parks, the following Indigenous communities were identified as being potentially affected and requiring consultation:

- Haudenosaunee Confederacy Chiefs Council
- Mississaugas of the Credit First Nation
- Six Nations of the Grand River

Introductory letters, including the Notice of Commencement, were issued to the Mississaugas of the Credit First Nation and Six Nations of the Grand River (with a copy to the Haudenosaunee Development Institute who represents the Haudenosaunee Confederacy Chiefs Council as part of the broader Six Nations community). See Appendix B for the letters issued to the Indigenous communities and email correspondences.

The City and Wood made follow up phone calls and emails to each Indigenous community to discuss their potential interest in the Project and next steps. The City met with the representatives of the Six Nations of the Grand River during meetings with the Mohawk Lake Working Group. The City also made efforts to meet with Mississaugas of the Credit First Nation to discuss the Project; however, due to extenuating circumstances, the meeting could not be held. The City welcomes the opportunity to engage with the involved Indigenous communities during future phases of the Project.

### 3.4 Mohawk Lake Working Group

The Mohawk Lake Working Group provides an effective avenue through which to share and valid information as well as gather feedback and insights. Participants include a wide variety of community members, including representatives from the Six Nations of the Grand River and representatives from public interest groups.

The City conducted working group meetings on:

- April 5, 2019
- November 20, 2019

Copies of meeting minutes are provided in Appendix B.

### 3.5 Agency Consultation

Agencies were consulted throughout the different phases of the project. The Notice of Commencement was distributed to various agencies. Responses were received from the following agencies:

- Ministry of Environment, Conservation and Parks (Official Response: February 15, 2019)
- Canadian Environmental Assessment Agency: (Official Response: March 20, 2019)
- Ministry of Tourism, Culture and Sport: (Official Response: June 6, 2019)
- Transport Canada: (Official Response: May 27, 2019)

On January 20, 2020, GRCA was provided draft versions of the Master Plan, Environmental Assessment and Subwatershed Stormwater Plan reports prepared as part of this study. On February 18, 2020, GRCA provided comments which were incorporated in this report. The following is the summary of GRCA's key comments:

- Work within regulated areas may trigger the need for a Scoped Environmental Impact Statement. Wetland boundaries will need to be delineated by a qualified consultant and subsequently verified by the GRCA.
- The use of naturally occurring wetlands for quality control would typically not be supported by GRCA's current policies.
- Additional project screening and a fisheries self-assessment are recommended to ensure compliance with *Fisheries Act* and the *Species at Risk Act*, as applicable.

In addition, at a meeting on February 19, 2020, GRCA commented that an online, linear stormwater management facility could be considered for the canal, noting that the canal basically functions as a pond currently given minimal gradient.

Copies of the email correspondences are provided in Appendix B.



## 4.0 Community Needs and Visioning

### 4.1 Mohawk Lake Vision Statement

For decades, the clean-up and revitalization of Mohawk Lake and Mohawk Park has been a goal of the residents of Brantford and the surrounding areas. As such, there have been various focused projects and studies undertaken by several City departments, with support from area stakeholders and various levels of government. Several Vision Statements were developed as follows:

#### **Mohawk Lake Working Group Vision Statement (2015):**

*I will be the place of vibrancy I was yesterday.*

*I am the heart of our communities and our place for reflection, healing and celebration.*

*I am both Mother Earth's refuge and your family's natural playground.*

*I am Mohawk Lake.*

#### **Mohawk Lake District Plan Vision Statement (Mohawk Lake District Area Plan, 2019) - Ongoing Project:**

*"Mohawk Lake District will be:*

*A welcoming place for residents, families and visitors of all ages to explore, shop, eat, learn, and gather. Parks and trails along Mohawk Lake and Canal and throughout the District will provide a beautiful and healthy way to connect with nature. Mohawk Lake District will be where we honour the past, but also a place to be inspired for the future. As a popular destination where history, culture, recreation, and tourism meet, Mohawk Lake District will be a place of pride in the community."*

### 4.2 Mohawk Lake Visioning Results (2015)

In 2014, the Mohawk Lake Working Group was created to: *Advocate for the environmental and historical restoration of Mohawk Lake in a collaborative manner with the City of Brantford and the community.* Further details regarding the Working Group can be found in Appendix B.

In 2015, the Mohawk Lake Working Group organized three workshops and engaged citizens through an online survey and their Facebook page. These Workshops were held to meet Goals 2 and 3 of the City's Community Strategic Plan (2014-2018).

- Goal 2: High Quality of Life and Caring for All Citizens and the long-term desired outcomes that:
  - Brantford citizens and visitors will enjoy a full range of well-supported and maintained arts, heritage, culture, sports and recreational facilities and programs.
  - Brantford will be recognized as a safe and healthy community - one that promotes and enables the well-being of its citizens and supports access of all citizens to a full range of health and community services.

- Goal 3: Managed Growth and Environmental Leadership and the long-term desired outcomes that:
  - Brantford's built heritage will be protected and enhanced.
  - Brantford will be recognized for its environmental stewardship and protection of its natural assets.

The following provides details related to community feedback received through the Surveys and Workshops respectively.

### 4.2.1 Surveys

In 2015, an online survey was undertaken using the same questions as a 1994 survey to compare results. The 1994 survey was the first formal engagement on revitalizing Mohawk Lake and Mohawk Canal. This survey generated 81 responses. The 2015 survey was online and had 38 respondents. The results of both surveys are shown in Table 4-1.

**Table 4-1: Public Survey Results (1994 vs. 2015)**

Question	1994 Results	2015 Results
Would you like Mohawk Lake water quality improved?	100% Yes	95% Yes 5% No
What level of water quality improvement would you like? High Quality (for sport fishing) Good Quality (for canoeing/sailing) Acceptable (for viewing)	27% High 67% Good 6% Acceptable	57% High 37% Good 3% Acceptable 3% N/A
Would you like Mohawk Lake and Canal developed for recreational purposes?	100% Yes	89% Yes 11% No
What recreation activities would you like to participate in at Mohawk Lake and Canal?  Top 3 choices were:	<ul style="list-style-type: none"> <li>• Boating (including canoeing, paddle boats, sailing)</li> <li>• Fishing</li> <li>• Swimming</li> </ul>	<ul style="list-style-type: none"> <li>• Canoeing</li> <li>• Walking/Hiking</li> <li>• Fishing</li> </ul>
What facilities would enhance the Lake?  Top 3 choices were:	<ul style="list-style-type: none"> <li>• Beach</li> <li>• Wildlife Area</li> </ul>	<ul style="list-style-type: none"> <li>• Trails</li> <li>• Look-outs</li> <li>• Docks</li> </ul>



**Table 4-1: Public Survey Results (1994 vs. 2015)**

Question	1994 Results	2015 Results
	<ul style="list-style-type: none"> <li>• Skating Facility</li> </ul>	
What commercial services associated with the Lake would appeal to you?  Top 2 choices were:	NA	<ul style="list-style-type: none"> <li>• Lessons</li> <li>• Boat rentals</li> </ul>
What are the barriers or constraints, if any, that prevent community members from visiting Mohawk Lake more often?	NA	A brief summary of the typical responses received are below: <ul style="list-style-type: none"> <li>• Mohawk Park is geared towards children and there are no facilities or activities for seniors</li> <li>• Mohawk Park does not contain enough attractions</li> <li>• Difficulty with accessing water due to the lack of shoreline</li> <li>• Impression that Mohawk Park is unsafe</li> </ul>
Number of annual visits to Mohawk Lake and Mohawk Park	NA	Most people responded visiting more than 7 times a year.

#### 4.2.2 Workshop (2015)

In 2015, the Mohawk Lake Working Group conducted three workshops. The goals of the workshops were to:

1. Gain an understanding of what the community values about Mohawk Lake based on the past and the present uses of Mohawk Lake;
2. Identify features that are significant to the community; and
3. Envision the lake in 20 years - features to be maintained, improved or added.

There were 64 people that participated in the workshops. Table 4-2 summarizes the feedback received from the workshops.

**Table 4-2: Feedback Received from the Workshops**

Workshop participants memories and experiences of Mohawk Lake and Mohawk Park:	Common fears for the project:	Common hopes for the project:
<ul style="list-style-type: none"> <li>• Former diverse wildlife.</li> <li>• Recreational activities, such as canoeing, boating, swimming, fishing and ice skating.</li> <li>• Dances and concerts, picnicking and walking the trails.</li> <li>• Trolley that used to run from Mohawk Park to Downtown.</li> <li>• A family gathering space.</li> <li>• Natural playground for children.</li> <li>• Emphasized the valuable history and significant role these features played in Brantford’s industrial and social history.</li> <li>• The Alfred Watts former hydro-electric power generation station, a valuable asset to Brantford’s heritage.</li> </ul>	<ul style="list-style-type: none"> <li>• Impact of a possible Brantford Southern Access Road (BSAR) route through the area*.</li> <li>• Over developing with recreational and tourism amenities, which impacts natural setting.</li> <li>• Cost of project / lack of implementation.</li> <li>• Disturbing the contaminants that are held in the sediments.</li> </ul>	<ul style="list-style-type: none"> <li>• Reconciliation and collaboration with the Six Nations community.</li> <li>• Using the park for education, recreation, festivals and events.</li> <li>• An all-season lake and park.</li> <li>• A vibrant green space for all ages and people in Brantford.</li> </ul>

\*BASR Project is not proceeding

Workshop participants were also asked to “brainstorm” ideas for their vision for Mohawk Park 20 years from 2015. The feedback received was summarize into general statements:

- *A kind of “Central Park” in Brantford for families and people of all ages to gather and meet;*

- *A major tourist attraction that is a place for festivals and events, a place for recreation, a place for romance, a place for children, “the place where everyone meets”;*
- *Change the reputation of the Lake to be known as a safe place and environmentally sound;*
- *Educational opportunities and research partnerships for school groups and post-secondary institutions and others about the natural environment and about the cultural history of the Canal, Six Nations, and Brantford’s industrial heritage;*
- *Restore or establish connections with the Grand River and with existing parks and trails; “re-connect people to the Lake”;*
- *Restore the natural environment, fish habitat, wildlife, and flora; and*
- *Establish Mohawk Lake as a place for residents of Brantford to have a stay-cation and a place which attracts people to visit and discover Brantford.*
- *Mohawk Lake, Canal, and Park could help connect various communities, such as the Eagle Place and Echo Place neighbourhoods as well as the Six Nations community.*

#### **4.3 Mohawk Lake District Plan Visioning (2018)**

The Mohawk Lake District Plan (2018) organized two public information centres (PICs) in March 29, 2018 (80 attendees) for Stage 1 (Vision and Principles) and November 28, 2018 (120 attendees) for Stage 2 (Preferred Land Uses). Both meetings were relatively diverse, with a number of different demographic groups representing all wards and neighbourhoods. Part of the engagement also included a 3-week online survey, receiving approximately 500 responses.

Additionally, the Mohawk Lake District Plan project team attended a Six Nations of the Grand River Open House BBQ (May 2018), Mississaugas of the Credit First Nation Open House BBQ (June and August 2018) and an East Ward Neighbourhood Association Family Event (April and December 2018). All three of these events allowed the project team to interact with numerous people of different demographics to gain a better understanding of their vision for Mohawk Park and the surrounding areas.

The results and feedback from these events are not yet available as the Study is still ongoing. At the time of this report, the Mohawk Lake District Plan - Draft Preferred Plan Staff Report was submitted to the Chair and Members of the Committee of the Whole - Community Development. This Staff Report shares the findings of the Mohawk Lake District Plan community engagement program and details regarding the draft preferred plan. This Staff Report will inform City Council as they make a decision the work program for the revitalization and redevelopment of the Mohawk Lake District Plan Study Area.

The Mohawk Lake District Working Group created in 2017, comprised of the Mayor and Councillor representatives from each ward, in order to address requests by various community groups who have expressed interest to relocate into the Mohawk Lake District area. The following community groups requested space: De dwa da dehs nye>s

Aboriginal Health Centre, Lansdowne Children Centre, Children Safety Village, Participation Support Services, Brant Theatre Workshops, Brantford Symphony Orchestra, Brant Historical Society, Personal Computer Museum, Canadian Industrial Heritage Centre, Mid-Size Performance Space, Brantford Police Services Headquarters and Six Nations Polytechnic. Altogether, the community groups requests would result in requiring 29 acres of space or 58% of the total available area.

The Mohawk Lake District Plan project team also met with a number of interested groups and individuals as part of their engagement strategy. This included Six Nations of the Grand River, Mississaugas of the Credit First Nation, 2019 Heritage Day Workshop, Kiwanis Club, Brantford Sunrise Rotary Club, Eagle Place Neighbourhood Walk during Jane's Walk weekend, and the citizen-driven Mohawk Lake Steering Committee.

#### 4.3.1 General Community Engagement Strategy

The Community Engagement Strategy developed for the Mohawk Lake District Plan (2018) was developed by WSP as an approach to engaging staff, agencies, stakeholders and community members during the Mohawk Lake District Planning Study. The strategy follows the City's Community Involvement Framework (2012) and Community Involvement Handbook (2012).

Engagement online through a project webpage and social media as well as in person through stakeholder meetings, public open houses, workshops, council meetings were key components of this plan. The main objectives of the public sessions were to develop a shared vision and gain input on the preferred options and concepts.

#### 4.3.2 Stage 1 (Vision and Principles)

As cited in the foregoing, the Stage 1 PIC was held in March 2018 with the goal of gathering community feedback about the overall vision and revitalization of the Mohawk Lake District study area. This included understanding what the public valued about the existing features, the goals for the area and the principles the public would like to use to guide the redevelopment effort. Stage 1 included various community events (Six Nations of the Grand River Open House BBQ, Mississaugas of the Credit First Nation Open House BBQ and East Ward Neighbourhood Association Family Event). Based on the input received at PIC#1 and the different community events, the following themes were identified:

- Vibrant
- Community
- Arts and Culture
- Water
- Connectivity
- Recreation
- Industrial Heritage

These themes helped develop the vision statement, which is described in Section 4.1. Along with the vision statement, guiding principles were established to describe the desired values:

- Vibrant Neighbourhood
- Centre for Tourism
- City’s Recreational Centre
- Conserve and Celebrate Heritage
- Holistic and Connected
- Sustainable Community

### 4.3.3 Stage 2 (Preferred Land Uses)

The purpose of the Stage 2 PIC held in November 2018 was to determine the land uses preferred by the community for the redevelopment area. Similar to Stage 1, Stage 2 also included the various community events (Mississaugas of the Credit First Nation Open House BBQ and East Ward Neighbourhood Association Family Event)

Three draft concept plans were presented and input on preferences were gathered. The results were tabulated and shown in Table 4-3:

**Table 4-3: Most Preferred vs Least Preferred Draft Concept Plan**

Options	Most Preferred	Least Preferred
Option 1 - Outdoor Events and Festival Focus	35	14
Option 2 - Culture and Community Focus	26	4
Option 3 - Community Services Focus	8	35

The Staff Report further details the concept plan, the preferred land uses and the analysis of the online engagement. Overall the general summary of comments received for the preferred concept include:

- Option 1 was the preferred plan; however, it requires further refinement;
- Support for the retention and improvement of the Museum;
- Parks and Open Space uses were highly desired, along with a concern as to whether the space would be underutilized and may be more appropriate to be more compact to allow for other uses;
- The Parks and Open Space were preferable to provide connections to existing trail networks and part of potential Greenwich Street Promenade design;
- Depending on the Option, Mixed Uses was received both negatively and positively;

- The Institutional uses received little support;
- The Promenade Corridor (Option 1) had consistent interest and support; and
- Connect adjacent indigenous areas through trails and consider indigenous design in the plan.

Community feedback revealed the vision for the Mohawk Lake District, which includes creating a welcoming place for residents and visitors to enjoy recreational activities, cultural facilities, institutional, commercial, and entertainment amenities. The feedback received also indicated that the community would like this area to be a place where visitors and tourists spend multiple days due to the wide variety of activities available. Overall, the vision is to be a *multi-faceted destination*, which will enhance the sense of community pride and promote the history and culture of the area, as well as compliment the natural and existing recreational features. Additional detail on the Mohawk Lake District Plan are presented in Appendix B.

#### 4.4 Mohawk Lake and Mohawk Canal Functional Master Drainage and Restoration Study Visioning (2019)

As part of this Project, the City held PICs in March 2019 and October 2019. Attendees were invited to provide input on their vision for Mohawk Lake and Mohawk Park. The feedback received included:

- *Don't forget the towpath.*
- *Turn eastern most end of Greenwich into Port of Mohawk Park and get rid of road there.*
- *If the ducks can be found, dredge the lake, put in a beach then lots of parking will be needed.*
- *Most important is dredging and clean-up of water quality, for fish, reptile, birds and small mammal friendly for a natural habitat and sanctuary.*
- *Least important is the "over development" of Mohawk Lake, so that it doesn't become an artificial entertainment centre. It should be peace and quiet for two and four legged animals.*
- *Not necessarily for information center.*
- *Keep parking as is to encourage more walking in the park.*
- *A big concern is health and safety in using Mohawk Lake and Park, as well as vandalism and the patrolling protection of same.*
- *Clean it up. Increase public transit options. Make use of the lake by public.*
- *Keep the lake wild and the surrounding lands / trails as much as possible.*
- *\*Community involvement. Recreational opportunities i.e. canoeing. Charity – Dragon Boat Races.*
- *Continue to keep natural environment.*



- *Have a safe access to lake from the park.*
- *Strict enforcement for dog walkers. Increase police patrolling.*
- *Work on invasive plant species. Keep natural habitat.*

Responses to the specific questions are summarized below from comment forms completed and returned.

*Question 1 – From the list of possible environmental issues and concerns commonly related to natural systems and function affected by urban uses, please identify which you consider important to the Mohawk Lake and Mohawk Canal Study and why.*

	Importance			Why?
	Very	Somewhat	Not	
<b>Quality of water for human use</b>	1	3	2	<ul style="list-style-type: none"> <li>• Allowing beaches / swimming opens up liability (water testing, risk of sharps and needles etc.)</li> <li>• Require strict regulations for water testing. Keep lake natural for wildlife.</li> <li>• Not consumable water.</li> <li>• Swimming should be limited</li> </ul>
<b>Quality of water for fish &amp; wildlife habitat</b>	6	-	-	<ul style="list-style-type: none"> <li>• Encourage habitat of wildlife.</li> <li>• Top quality water needed to support fish / wildlife.</li> <li>• Wildlife fish habitat required for balance and cleaning</li> <li>• Species have adapted and use the lake / canal / park as it is</li> </ul>
<b>Quality / quantity of water for recreation</b>	1	4	1	<ul style="list-style-type: none"> <li>• Canoeing and kayaking yes but no motorized watercraft</li> <li>• Opportunity for tourism, relaxation for residents.</li> </ul>
<b>Aquatic habitat (fish, invertebrates)</b>	6	-	-	<ul style="list-style-type: none"> <li>• Water, fish, wildlife, vegetation, trees exist together</li> <li>• Habitat is important for filtering and cleaning water.</li> </ul>

	Importance			Why?
	Very	Somewhat	Not	
				<ul style="list-style-type: none"> <li>Species have adapted and used the lake / canal / park as it is.</li> </ul>
<b>Terrestrial habitat (wildlife, birds)</b>	6	-	-	<ul style="list-style-type: none"> <li>Water, fish, wildlife, vegetation, trees exist together</li> <li>Plant and insect control provided by wildlife and birds.</li> <li>Species have adapted and used the lake / canal / park as it is</li> </ul>
<b>Vegetation</b>	6	-	-	<ul style="list-style-type: none"> <li>Environmentally + habitat-friendly species (non-invasive).</li> <li>To attract wildlife.</li> <li>Water, fish, wildlife, vegetation, trees exist together</li> <li>Vegetation essential for erosion and wildlife and flood control</li> <li>Species have adapted and used the lake / canal / park as it is</li> </ul>
<b>Flooding from streams and rivers</b>	3	3	-	<ul style="list-style-type: none"> <li>A natural occurrence.</li> <li>To maintain present landsite from future erosion.</li> <li>Controls are needed to keep the area from being damaged.</li> <li>Need to invest in upstream flood controls.</li> </ul>
<b>Flooding from streets / sewers</b>	4	2	-	<ul style="list-style-type: none"> <li>Once the dredging and clean-up or remediation is complete, it will be vital to prevent more of the same problems in the future.</li> <li>Difficult to reroute storm sewers.</li> <li>Flooding will likely bring sediment.</li> </ul>

	Importance			Why?
	Very	Somewhat	Not	
				<ul style="list-style-type: none"> <li>Full review of crossover from sanitary to storm sewers / option treat runoff.</li> </ul>
<b>Stream erosion &amp; sediment accumulation</b>	5	1	-	<ul style="list-style-type: none"> <li>Remediate to protect erosion and thus reduce sediment.</li> </ul>

*Question 2 – Do you have any other environmental issues or concerns related to the Mohawk Lake and Mohawk Canal Study Area?*

- Yes, through decades of happy neglect, the area has become a green corridor and is important wildlife habitat for dozens upon dozens of species of amphibians, reptiles, birds and mammals.
- Presumably with the topography and infrastructure within the catchment areas, it would not be feasible to re-route any storm drains and so on.
- To eliminate using the Park for drug users i.e. syringes.
- My concept is that of a natural recreation area that has health fauna and flora and opportunities for recreation (swimming, canoeing, hiking and walking).
- Yes, we are park neighbours. A lot of wildlife / species / migratory / mating species use Mohawk Lake / Canal / Park as it is – it has overgrown and become “wild” despite contamination and degradation. Examples: mating pair Great Horned Owls, mating pair red-tailed Hawks, family of Cooper’s Hawks – multi-year basis.

*Question 3 – What recommendations might you suggest to address your key issues or concerns?*

- Keep the green! Turn part of Greenwich (eastern most) into part of Mohawk Lake and eliminate that section of the road.
- Obviously dredging and clean-up of water quality is the priority – assuming funding (Federal, Provincial, Municipal) can be obtained.
- Don’t clear away too much, don’t “fix” too much. Just clean-up garbage, provide minimal safe access. We already walk the trails and canoe / kayak on the lake, canal and river. We ski on the lake, park, trails in winter. We walk and bike in the summer, spring and fall.

The visioning feedback received from PIC 1 was presented at PIC 2 to confirm if the vision determined for Mohawk Lake and Mohawk Canal is accurate with residents and stakeholders’ vision. The vision was confirmed to be accurate.

#### 4.4.1.1 Recreational Uses

Several potential recreational uses were discussed as part of the 2015 and the current (2019) visioning activities. Some of these uses include:

- Swimming;
- Boating;
- Fishing;
- Canoeing;
- Hiking;
- Walking;
- Ice Skating;
- Biking;
- Picnicking;
- Charity Events – Dragon Boat Races;
- Using the park for education, recreation, festivals and events;
- An all-season lake and park;
- A vibrant green space for all ages and people in Brantford; and
- Attending dances and concerts.

#### 4.4.1.2 Cultural Uses

Along with recreational uses proposed for Mohawk Lake and Mohawk Park during the 2015 and the current (2019) visioning, cultural uses were also discussed. The City's Waterfront Master Plan (2010) proposes the establishment of a cultural corridor within the Mohawk Lake and Mohawk Canal study Area. This is due to the majority of the current study area being classified in the Waterfront Master Plan as a Major Natural Cultural Heritage Interpretation & Recreation Destination, with the Mohawk Canal being a focal point for Cultural Heritage interpretation.

During the 2015 engagement activities, input gathered identified the need for educational and research opportunities for students, specifically based on the natural and cultural environment / history of Mohawk Canal, Six Nations of the Grand River, and Brantford's industrial heritage.

Information regarding cultural uses contained in the Mohawk Lake District Plan – 2018 engagement and visioning will be considered in the future stages of the Project.  
Summary of Identified Priorities

The common themes identified from the 2015 and 2019 visioning activities suggest that the residents would like to enhance the landscape for fish, wildlife, birds and vegetation; however, they would prefer not to significantly alter the landscape for human activities. Residents would like to improve recreational opportunities, while maintaining the natural beauty of the area. Concerns were raised that access to beaches and swimming should be limited as it would open up liability (water testing, risk of sharps and needles etc.).

## 5.0 Policies and Plans

This Project has considered several Municipal, Provincial and Federal regulations and policies related to land use planning, stormwater quantity and quality, and environmental systems management for guidance, including:

### Federal

- Achieving a Sustainable Future – A Federal Sustainable Development Strategy (FSDS) For Canada 2019 to 2022 (2019)

### Provincial

- A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2019)
- Draft Low Impact Development Stormwater Management Guidance Manual (2017)
- GRCA: Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses (O. Reg 150/06)/ GRCA Policies for the Administration of Ontario Regulation 150/06 (2015)
- Provincial Policy Statement (2014)
- Ontario Wetland Evaluation System (2013)
- GRCA: Grand River Watershed Wetland Evaluation Protocol (2005)
- GRCA: Wetland Policy (2003)
- Stormwater Management Planning and Design Manual (2003)
- Technical Guide for River & Stream Systems (2002)

### Municipal

- Mohawk Lake District Planning Study (Ongoing)
- City of Brantford Master Servicing Plan for Water, Sanitary and Stormwater Services (Ongoing)
- City of Brantford Community Strategic Plan (2014-2018)
- City of Brantford Parks and Recreation Master Plan (2018)
- City of Brantford Official Plan (2016)
- City of Brantford Waterfront Master Plan (2010)
- City of Brantford Downtown Master Plan (2008)
- Mohawk Lake Revitalization Plan (1999)
- Mohawk Lake Land Use Planning Study (1987)

The following sections summarize the objectives and regulatory requirements of these relevant policies.

## 5.2 Federal

### 5.2.1 Environment and Climate Change Canada

#### 5.2.1.1 Achieving a Sustainable Future – A Federal Sustainable Development Strategy (FSDS) For Canada 2019 to 2022 (2019)

Achieving a Sustainable Future (2019) sets out goals and commitments for achieving sustainability guided by the *Federal Sustainable Development Act (2008)*. It sets out 13 aspirational goals to support Canada’s sustainable development vision. Of these goals, the following six (6) have been considered directly relevant to this Project:

- Pristine Lakes and Rivers: Clean and healthy lakes and rivers support economic prosperity and the well-being of Canadians
- Sustainably Managed Lands and Forests: Lands and forests support biodiversity and provide a variety of ecosystem services for generations to come
- Healthy Wildlife Populations: All species have healthy and viable populations
- Clean Drinking Water: All Canadians have access to safe drinking water and, in particular, the significant challenges Indigenous communities face are addressed
- Connecting Canadians With Nature: Canadians are informed about the value of nature, experience nature first hand, and actively engage in its stewardship
- Safe and Healthy Communities: All Canadians live in clean, sustainable communities that contribute to their health and well-being

Medium-term targets and short-term milestones support each goal. Action plans describe what will be done to achieve the goals and targets. Meanwhile, cross-cutting priorities such as conducting robust and thorough environmental assessments, respecting the rights of Indigenous peoples, ensuring that environmental effects are fully considered in policy, plan and program development, and implementing strong environmental legislation, will support progress in all areas of the FSDS.

## 5.3 Provincial

### 5.3.1 Ministry of Municipal Affairs and Housing

#### 5.3.1.1 A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2019)

The Growth Plan for the Greater Golden Horseshoe – Places to Grow, was adopted in June 2006 under the provisions of the *Places to Grow Act, 2005*, and was updated in 2019. The City lies within the Outer Ring of the Greater Golden Horseshoe Growth Plan Area. The Province recently updated and renamed the plan *A Place to Grow: Growth Plan for the Greater Golden Horseshoe*, which came into effect May 16, 2019. The plan provides the framework for implementing the Province’s vision for building strong, prosperous communities by better managing growth to the year 2041 in the burgeoning Greater Toronto and Hamilton Area (GTHA). Since implementation, the plan has been amended to provide population and employment forecasts to the year 2041.

The plan contains specific policies and directives regarding transportation infrastructure, land use planning, urban form, housing, natural heritage and resource protection to be

considered by municipalities in their planning activities. The Growth Plan provides direction on where growth can occur, the form of future development, and future population and employment forecasts. In the introduction to the plan it is stated that, within the Greater Golden Horseshoe; “natural areas ... support recreational activities that benefit public health and overall quality of life.”

### 5.3.1.2 Provincial Policy Statement (2014)

The Provincial Policy Statement (2014) provides for appropriate guidance related to development, while outlining the objectives of protecting resources of provincial interest, public health and safety, and the quality of the natural and built environment. The Provincial Policy Statement supports improved land use planning and management, which contributes to a more effective and efficient land use planning system.

The following policies within the Provincial Policy Statement relate to this Project:

Section	Policy
1.0	Building strong healthy communities:
1.1	Managing and directing land use to achieve efficient and resilient development and land use patterns
.1	<i>Healthy, livable and safe communities are sustained by:</i>
a.	accommodating an appropriate range and mix of residential (including second units, affordable housing and housing for older persons), employment (including industrial and commercial), institutional (including places of worship, cemeteries and long-term care homes), recreation, park and open space, and other uses to meet long-term needs
h.	promoting development and land use patterns that conserve biodiversity and consider the impacts of a changing climate
1.5	Public spaces, recreation, parks, trails and open space
.1	<i>Healthy, active communities should be promoted by:</i>
b.	planning and providing for a full range and equitable distribution of publicly-accessible built and natural settings for recreation, including facilities, parklands, public spaces, open space areas, trails and linkages, and, where practical, water-based resources
c.	providing opportunities for public access to shorelines
d.	recognizing provincial parks, conservation reserves, and other protected areas, and minimizing negative impacts on these areas
1.6	Infrastructure and public service facilities
.6	<i>Sewage, water and stormwater</i>
.7	Planning for stormwater management shall:
a.	minimize, or, where possible, prevent increases in contaminant loads
b.	minimize changes in water balance and erosion
c.	not increase risks to human health and safety and property damage
d.	maximize the extent and function of vegetative and pervious surfaces
e.	promote stormwater management best practices, including stormwater attenuation and re-use, and low impact development
2.0	Wise use and management of resources

Section	Policy
2.1	Natural Heritage
.1	<i>Natural features and areas shall be protected for the long term.</i>
.2	<i>The diversity and connectivity of natural features in an area, and the long-term ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and ground water features.</i>
.3	<i>Natural heritage systems shall be identified in Ecoregions 6E &amp; 7E<sup>1</sup>, recognizing that natural heritage systems will vary in size and form in settlement areas, rural areas, and prime agricultural areas.</i>
.4	<i>Development and site alteration shall not be permitted in:</i>
a.	<i>significant wetlands in Ecoregions SE, 6E and 7E<sup>1</sup></i>
.6	<i>Development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.</i>
.7	<i>Development and site alteration shall not be permitted in habitat of endangered species and threatened species, except in accordance with provincial and federal requirements.</i>
.8	<i>Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in policies 2.1.4, 2.1.5, and 2.1.6 unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions.</i>
2.2	Water
.1	<i>Planning authorities shall protect, improve or restore the quality and quantity of water by:</i>
a.	<i>using the watershed as the ecologically meaningful scale for integrated and long-term planning, which can be a foundation for considering cumulative impacts of development</i>
b.	<i>minimizing potential negative impacts, including cross-jurisdictional and cross-watershed impacts</i>
c.	<i>identifying water resource systems consisting of ground water features, hydro logic functions, natural heritage features and areas, and surface water features including shoreline areas, which are necessary for the ecological and hydrological integrity of the watershed</i>
d.	<i>maintaining linkages and related functions among ground water features, hydro logic functions, natural heritage features and areas, and surface water features including shoreline areas</i>
e.	<i>implementing necessary restrictions on development and site alteration to:</i>
	<i>1. protect all municipal drinking water supplies and designated vulnerable areas</i>



Section	Policy
	<p>2. <i>protect, improve or restore vulnerable surface and ground water, sensitive surface water features and sensitive ground water features, and their hydrologic functions;</i></p> <p>f. <i>planning for efficient and sustainable use of water resources, through practices for water conservation and sustaining water quality</i></p> <p>g. <i>ensuring consideration of environmental lake capacity, where applicable</i></p> <p>h. <i>ensuring stormwater management practices minimize stormwater volumes and contaminant loads, and maintain or increase the extent of vegetative and pervious surfaces</i></p>
.2	<p><i>Development and site alteration shall be restricted in or near sensitive surface water features and sensitive ground water features such that these features and their related hydro logic functions will be protected, improved or restored.</i></p> <p><i>Mitigative measures and/or alternative development approaches may be required in order to protect, improve or restore sensitive surface water features, sensitive ground water features, and their hydro logic functions.</i></p>
2.6	Cultural heritage and archaeology
.1	<i>Significant built heritage resources and significant cultural heritage landscapes shall be conserved.</i>
.2	<i>Development and site alteration shall not be permitted on lands containing archaeological resources or areas of archaeological potential unless significant archaeological resources have been conserved.</i>
.4	<i>Planning authorities should consider and promote archaeological management plans and cultural plans in conserving cultural heritage and archaeological resources.</i>
.5	<i>Planning authorities shall consider the interests of Aboriginal communities in conserving cultural heritage and archaeological resources.</i>

### 5.3.2 Ministry of the Environment, Conservation and Parks

#### 5.3.2.1 Low Impact Development Stormwater Management Guidance Manual (MOECC, 2017 Draft)

The Low Impact Development Stormwater Management Guidance Manual (MOE, 2017 Draft) is intended to complement the 2003 Manual by providing planning and design guidelines and criteria for stormwater management in Ontario that account for recent stormwater innovation and climate change mitigation. The Draft 2017 Manual outlines specific criteria for stormwater volume control requirements, selecting water budget and water modelling tools, groundwater protection considerations from infiltration based Low Impact Development (LID) Best Management Practices (BMPs), criteria for model

selection, and climate change considerations regarding future scenarios, and risks and vulnerabilities.

### 5.3.2.2 Stormwater Management Planning and Design Manual (MOE, 2003)

The Stormwater Management Planning and Design Manual (MOE, 2003) provides planning and design guidelines and criteria for stormwater management in Ontario. The Manual outlines design criteria for water quality, erosion and flood control. The following policies apply specifically to the Project:

- Water quality control to be established to the standards outlined in the Stormwater Management Planning and Design Manual for the requisite level of control required by the receiving watercourse; and,
- Provide the requisite erosion control for protection of downstream watercourses to ensure they remain stable (*Ontario Water Resources Act* as administered by the Ministry of the Environment).

### 5.3.3 Ministry of Natural Resources and Forestry

#### 5.3.3.1 Ontario Wetland Evaluation System (2013)

The Ontario Wetland Evaluation System (OWES) is split into two parts, Northern and Southern. The City falls under the Southern Manual (3<sup>rd</sup> Edition, Version 3.2, 2013). The Provincial Policy Statement protects significant wetlands from development or alteration. This evaluation system informs Ontario's land use planning process by providing an evaluation procedure used to determine a wetlands significance under Section 2.1 of the Provincial Policy Statement. Wetlands are assessed based on assessed values in maintaining natural processes (ecosystem values) and on the benefits provided to society (human utility values).

The Mohawk Lake and Oxbow Wetland Complex was last evaluated in 2000 and as per the *OWES, Southern Manual* was not considered to be significant. As an outcome of the review undertaken as part of the Characterization Study, recommended that the existing wetland evaluations be updated according to OWES This recommendation is based on the recent species up-listing for recorded species, i.e. [Eastern Wood-Pewee (*Contopus virens*)] and new documentation of species; [Snapping Turtle (*Chelydra serpentina*) and Blanding's Turtle (*Emydoidea blandingii*)] from when the wetland evaluation was undertaken in 2000.; As stated in the Characterization Study (2019), an update to the wetland evaluation would also present an opportunity to consider the addition of a small wetland located between the Grand River and the south side of the Mohawk Channel, in which snapping turtle and painted turtle (*Chrysemys picta*) were observed.

#### 5.3.3.2 Technical Guide for River & Stream Systems (MNR, 2002)

The Ministry of Natural Resources and Forestry (MNR) provides planning and technical guidelines for the establishment and management of natural hazards as they relate to river and stream systems including flooding, erosion, and slope stability. Policies are aimed at directing development away from natural hazards where there is a risk to public safety or a risk of property damage. The Natural Hazard Policies are

applied under the Provincial Policy Statement, which is issued under the *Planning Act* and administered by the MNRF.

### 5.3.4 Grand River Conservation Authority (GRCA)

#### 5.3.4.1 GRCA: Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses (O. Reg 150/06)/ GRCA Policies for the Administration of Ontario Regulation 150/06 (2015)

Grand River Conservation Authority (GRCA) provides environmental and planning expertise to developers and municipalities and ensures provincial, federal and conservation authority policies and regulations are followed with respect to development and construction in the Grand River watershed.

GRCA also manages all regulated areas within its jurisdiction, such as floodplains, steep slopes, wetlands, shorelines and waterways according to Ontario Regulation 156/06 – Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation. Accordingly, GRCA reviews development proposals within, or adjacent to, regulated areas pertaining to the conservation and management of watershed resources and applicable provincial policies and guidelines. In most instances this involvement is required as a result of regulations passed under the authority of *Ontario's Planning Act* and by Provincially delegated responsibility for the management of natural hazards via the *Conservation Authorities Act*.

#### 5.3.4.2 GRCA: Grand River Watershed Wetland Evaluation Protocol (2005)

The Grand River watershed wetland evaluation protocol is a product of the MNRF/GRCA/DUC (Ducks Unlimited Canada) Wetlands Working Group. It was initiated to fulfill a requirement within the GRCA: Wetland Policy (2003) to work with the MNRF, member municipalities, qualified individuals and groups to develop and implement a work plan for the identification, classification, evaluation and mapping of all wetlands in the Grand River watershed by 2005. This Protocol provides a framework for data and information exchange regarding all wetlands within the GRCA lands.

#### 5.3.4.3 GRCA: Wetland Policy (2003)

Portions of the Wetlands Policy have been superseded by the Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses. This policy complements the current Provincial Policy Statement regarding Provincially Significant Wetlands and provides a framework for implementation. This policy provides for protection of non-provincially significant and unevaluated wetlands, as well as more certainty to GRCA member municipalities regarding planning policies, development applications, and public undertakings.

## 5.4 Municipal

### 5.4.1 City of Brantford Master Servicing Plan for Water, Sanitary and Stormwater Services (In Progress)

The Master Servicing Plan for Water, Sanitary and Stormwater Services is currently being revised, concurrently with the City's Transportation Master Plan and Official Plan.

The purpose of the Master Servicing Plan will be to create a plan for 2041 and beyond that considers the management, expansion and funding of the water, wastewater and stormwater systems in the City and the Boundary Expansion Land. The Master Servicing Plan will detail the strategies to manage infrastructure improvements and growth efficiently and effectively, and identify potential individual projects that would correlate with the strategies. These individual projects will be prioritized based on their need and timing. For those projects that form part of the short, medium, and longer-term implementation of this study, focused on Mohawk Lake and Mohawk Canal, conceptual cost estimates, phasing and construction (multi-pronged, focused on water quality, volume and community needs of the lake and canal) have been developed as a component of this current study.

#### 5.4.2 Mohawk Lake District Planning Study (In Progress)

The Mohawk Lake District Planning Study was initiated in 2017 as an outcome of the City of Brantford Strategic Plan (2014-2018). Its purpose is to guide development and revitalization in the Mohawk Lake District. The ultimate goal for the area is to create a vibrant, mixed-use urban neighbourhood, focusing on economic development needs and growth. The Mohawk Lake District Plan includes a District Plan Report, a series of technical studies, and implementing planning documents (i.e. Design Guidelines, an Official Plan Amendment and Zoning By-law Amendment). The Mohawk Lake District Plan Background Study (2018) has been developed, and three preliminary concept plans were presented to the public, each with a different vision for the Greenwich Mohawk Site.

The Greenwich Mohawk Site is a 20.59-hectare brownfield site located on the lands to the south of the West Canal. The site consists of three properties owned by the City, which are previously vacant industrial lands. The City decided to remediate the lands in order to initiate private sector interest and completed the remediation program in 2017. All buildings associated with the vacant industrial lands were demolished, except for the Canadian Military Heritage Museum and the Timekeeper's Office Buildings, which are designated under the *Ontario Heritage Act*. The Spur Railway line also traverses the Mohawk Lake District Plan study area.

The Draft Preferred Mohawk Lake District Plan (as of June 2019) presents three destination components:

- an overall Vision and outline of Areas (Gateway Area, Cultural and Community Destination Area, Mohawk Lake and Park Recreation Area);
- the overall Draft Preferred Plan; and,
- the Culture and Community Destination Area Draft Preferred Plan.

The draft preferred plan envisages development at the Greenwich Brownfield Site to include mixed-use developments of low and mid-rise residential, institutional and cultural uses, and open spaces. New trails and parks have been identified, as well as focal points throughout the district. Redevelopment to implement the broader Mohawk Lake District Plan is expected to result in impacts, as well as opportunities tied to the lake and canal, which will need to be accounted for in this project.

### 5.4.3 City of Brantford Parks and Recreation Master Plan (2018)

The Parks and Recreation Master Plan was approved in 2018 and outlines the goals and objectives for the parks and recreational opportunity in the City. The Master Plan provides a multi-year [short (1-5 years), medium (6-10 years), and longer-term (11+ years) priorities] framework to develop the associated facilities, programs and services, as well as a guide to municipal decision making for a 10-24-year time period. The Parks and Recreation Master Plan considered all provisions for quality and sustainable access to recreational opportunities for residents and visitors for all seasons.

The Parks and Recreation Master Plan included six goals;

**Goal 1:** To invest in sustainable infrastructure for resident and business retention, attraction and community quality of life

**Goal 2:** To ensure proactive planning for growth and bringing annexed lands into the fold for recreation delivery and service

**Goal 3:** To promote and provide access to recreation for health, wellness and active living

**Goal 4:** To connect the system of parks, open space and trails that maximizes the City's natural heritage assets and the Grand River as a central feature

**Goal 5:** To strengthen the City's resources and profile as a sport tourism, recreation and special event destination

**Goal 6:** To continue to improve the parks and recreation service delivery system through integrated and coordinated planning and partnerships

This project is considered to meet Goals 1, 3 and 5 of the Parks and Recreation Master Plan, as it aims to improve the quality of life for Brantford residents, attract tourists, provides access to a new recreational area and creates a destination for recreational and special event tourism,

Although the focus of this project is not directly on the Mohawk Park facilities and rather on the Lake as a Park amenity, the Parks and Recreational Master Plan discusses a number of commitments, investment opportunities and recommended improvements within the study area of this project.

The City of Brantford Parks and Recreational Master Plan states the following:

- Identifies the continued commitment to maintain the current splash pads at Mohawk Park.
- Indicates the need to evaluate the future of Mohawk Pavilion for repurposing or investments through broader feasibility planning and future uses as per the Mohawk Lake District Plan. The repurposing or capital investment will be part of the short to medium term timeframe. Through the feasibility planning, should the need to develop another cultural or event space be identified, the Mohawk Pavilion will be decommissioned or repurposed.

- Improvements are recommended for the senior soccer field in Mohawk Park. This soccer field will be maintained as a senior soccer / multi-use field for school and community use, tournament support in conjunction with Kiwanis Field. The improvements suggested including field lighting and additional sports fields on reserve lands on south side of Glenwood Drive, west of Lynwood Drive.

#### 5.4.4 City of Brantford Community Strategic Plan (2014-2018)

The City of Brantford Community Strategic Plan (2014-2018) is based on three significant elements:

- Community Vision;
- Corporate mission; and
- Long-term desired outcomes.

The Community Vision is:

*Brantford- proud, vibrant, progressive ... a "GRAND" community for living, learning, working and playing.*

The Corporate Mission is:

*The City of Brantford, in partnership with our community, is committed to responsible leadership through sound fiscal management and the delivery of quality programs and services for the citizens of Brantford.*

The strategic goals are based on four main pillars:

1. Economic Vitality & Innovation
2. High Quality of Life & Caring for All Citizens
3. Managed Growth & Environmental Leadership
4. Excellence in Governance & Municipal Management

This Project is expected to meet pillars 1, 2 and 3 as improving Mohawk Lake, Canal and Park will contribute to economic vitality, improve the quality of life for citizens and contribute to environmental leadership.

#### 5.4.5 City of Brantford Official Plan (2016 – Draft)

The City of Brantford Official Plan provides a statement of goals, objectives and policies that guide the City's growth and change around physical development and future land use. The Official Plan is currently under review. A Draft Official Plan (Version 1), was released in July 2016, which is not yet in effect and remains under review. As such, the Official Plan developed in 1988 that has been continuously amended over the years remains the City's legal document. For the purposes of this technical memorandum, the Draft Official Plan 2016 has been reviewed, as the intent for this study is to understand future growth patterns conformance with existing policies.

Policies stated in the Draft Official Plan (2016 Version 1), identify development constraints in the form of hazard lands subject to erosion and flooding, and development opportunities with respect to the strengthening of the bikeway and trails

network, and the remediation and redevelopment of the area to support mixed land use, and recreational and cultural activities.

*Schedule 1- Growth Management* identifies growth and intensification areas within the City boundaries, which include the Built-Up Area, Greenfield Area, Future Urban Growth Area, and Core Natural Area.

- Within the Built-Up Area, the Downtown Urban Growth Centre and Intensification Corridor areas are the primary designated growth areas.
- The lands directly adjacent to the study area are designated Existing Stable Neighbourhood, where development will be limited and consist primarily of the development of vacant lots and minor infill (Official Plan, Part 1, 3.4(i)). This form of development is not anticipated to have significant effects on the surface water runoff or erosion hazards and is not considered a significant concern to this project.

*Erosion Site #1, Shallow Creek*, is located within the Downtown Urban Growth Centre, where much of the surface water will be directed to Shallow Creek via surface water runoff and storm sewer outfalls.

- Additional development in this area may result in a higher quantity and poorer quality of stormwater runoff and may exacerbate the erosion conditions already occurring at this location. Mitigation measures should be considered in future scenarios.

*Schedule 5-1- Floodplain* identifies the banks of Mohawk Lake and Mohawk Canal and the lands to the south as Special Policy Area 1, and the lands to the southeast of the east canal as Floodway Policy Area.

- The Floodway Policy Area (Official Plan, Part 1, 7.2.1) states that development is to be limited to public infrastructure, flood control works, and structures associated with open space uses (Official Plan, Part 1, 7.2.1.b).
- Special Policy Area 1 contains restrictions on the form of development, generally prohibiting sensitive uses such as emergency services and structures with basements.

*Schedule 5-3 Steep Slope and Erosion Hazard* identifies the majority of the banks of Mohawk Lake and Mohawk Canal as Steep Slopes and Erosion Hazard, including parts of Mohawk Park, Glebe Farm Indian Reserve, and the areas surrounding Tributary 1.

- This designation requires the areas be generally maintained in their natural state, with the exception of some development subject to approval by the GRCA, geotechnical assessments and other appropriate studies, and appropriate erosion and siltation control measures during construction (Official Plan, Part 1, 7.3).

*Schedule 6- Landfill Sites* identifies the active and abandoned landfill sites in the City and classifies the abandoned sites into four (4) categories.

- These sites should be further investigated to determine their potential role in both current and previous sources of contamination to water and sediment quality.

*Schedule 9- Bikeway and Trails Network Plan* identifies the existing and proposed network of multi-use trails and on-street routes.

- The proposed routes should be taken into consideration when developing the Drainage Plan and Master Plan.

*Schedule 11- Modified Policy Areas* classifies a major portion of the study area as Area 5- Mohawk Lake/ Greenwich Mohawk District Area, In this area;

- The City shall encourage the comprehensive redevelopment of properties in this area, including the Greenwich Mohawk site, Mohawk Lake and surrounding area, which shall consider a mix of uses, including residential, clean employment uses, recreational and open space uses, institutional uses and commercial use, and takes into consideration the cultural significant of the site and larger district area, and,
- further detailed planning studies to provide direction to the redevelopment of the area (Official Plan, Part 2, 1.5).

#### **5.4.6 City of Brantford Waterfront Master Plan (2010)**

The Brantford Waterfront Master Plan provides a framework to protect and enhance the Grand River and its tributaries by protecting the natural features, trails access to water and allowing for appropriate development on adjacent land. The Master Plan includes a waterfront vision statement, guiding principles, implementation strategy and incorporates the Official Plan policies.

The Master Plan is made up of various frameworks including natural heritage parks, access, heritage and culture, destinations and neighbourhood and districts as follows:

1. The Natural Heritage Framework identifies the Waterfront Master Plan study area as Core Environmental Features and Potential Restoration Area, Glebe Farm Indian Reserve as a Significant Vegetation Community, and other portions of the study area as Woodland.
2. The Parks Framework identifies Mohawk Park as a Destination Park (as does The Destination Framework) and identifies a Linear River Edge Open Space along the banks of Mohawk Lake and Mohawk Canal on both the north and south banks. The Waterfront Master Plan provides background on the important history of Mohawk Park, and its role as a major focus of the Waterfront Master Plan, as the continuous greenway has the potential to provide nodes of recreational activity and provides park vistas for nearby locations.
3. The Access Framework identifies a proposed and existing Primary Waterfront Trail, which has been assumed to be synonymous with the Linear River Edge Open Space. The existing trail currently runs along the north and south banks of the eastern portion of Mohawk Lake and the east canal. A new 3 km portion of the Primary Waterfront Trail is proposed on the north side of Mohawk Lake and Mohawk Canal from Mohawk Park to Clarence Street, as well as a green street connection along the south of the lake and canal along Greenwich Street. The development of these trails will require coordination and approval with the Six Nations of the Grand River. The creation of the Primary Waterfront Trail may initiate development, which should be considered in the Drainage Plan and Master Plan.



4. The Heritage & Culture Framework identifies areas of Archaeological Potential, as well as areas of Mohawk Park, Lake and Canal, and Hydro Generation Station Ruins, as Cultural Heritage Resources; this is discussed in more detail in the Characterization Report and Cultural Heritage Landscape Feasibility Study.
5. The Cultural Corridor Framework identifies much of the study area as a Major Natural Cultural Heritage Interpretation & Recreation Destination, and the east canal and south side of the west canal as a Focus of Cultural Heritage Interpretation.
6. The Destination Framework identifies Mohawk Park as a Sports Field destination. The Plan proposes the branding of the Waterfront Cultural Corridor for overall promotion of the area as a tourism destination and suggests marketing efforts could be undertaken in partnership with destination marketing activities in the region. The Plan discusses a variety of economic development opportunities, and coordination with the City's Economic Development Strategy, both of which could bring further growth and development to the area.
7. The Neighbourhoods & Districts Framework identifies several areas classified as Potential Development Areas within and surrounding the Waterfront Master Plan study area. The Plan identifies the lands north of Glebe Farm Indian Reserve and adjacent to the south bank of the West Canal as Potential Development Areas. These areas do not align with the areas identified for growth in the Growth Management Plan. The Waterfront Master Plan does not elaborate on how these areas were identified as Potential Development Areas.
8. The Implementation Plan recommends a range of projects and initiatives, including the following initiatives specific to Mohawk Park: the preparation of a forest management plan, removal of invasive plants from natural areas, implementation of wildlife crossings, upgrade of park facilities, and removal of the fence around the perimeter of the park.

#### 5.4.7 City of Brantford Downtown Master Plan (2008)

The City of Brantford Downtown Master Plan was approved in 2008 and since the approval, the Brantford downtown core has undergone a successful transformation. The transformation was a result of a partnership with the Provincial Government, Downtown Brantford Business Improvement Area (BIA) and Wilfred Laurier University / other post-secondary institutions. The goal was to create a thriving business community for students and citizens and to attract visitors. The Downtown Master Plan aimed to guide development and recommend improvements for the downtown core, including a vision for the evolution of downtown Brantford over a 5-year time period.

Thus far, the following recommendations have been implemented:

- Laurier- Brantford YMCA;
- Harmony Square;
- Revitalized Downtown Public Library;
- Aggressive Capital Plan for improvements to roads and municipal services;
- Victoria Park / George Street Heritage District Renewal;

- Conestoga College expansion in downtown; and
- GO Transit Service providing more commuter options from Brantford to the GTA.

#### 5.4.8 Mohawk Lake Revitalization Plan (1999)

The Mohawk Lake Revitalization Plan (1999) was developed to establish the work plan for the Mohawk Lake Revitalization Project, which included the following works.

- A Sediment Collection Structure at the inlet to Mohawk Lake designed to significantly reduce sediment loading;
- Pre-Treatment Systems to be installed at the storm outlets to further limit inflow of sediment and contaminants to the lake and canal; and
- Lake and Canal Restoration through flow balancing, reshaping the lake bottom, and vegetation plantings to improve species diversity, and habitat conditions.

The Mohawk Lake Revitalization Plan also detailed the technology that should be used as part of the Revitalization Project, including modelling, data collection methodology and simulations.

The Mohawk Lake Revitalization Plan recommended consulting previous interested parties to participate in the following aspects of the project:

- Training;
- Site Preparation;
- Harvesting;
- Planting;
- Stocking;
- Building and Placement of Habitat Structures;
- Site Cleanup;
- Trail Building;
- Interpretive Sign Design (Designed through School Competitions);
- Installation of Public Facilities;
- Dockage;
- Boat Launch;
- Handicapped Access; and
- Interpretive Centre.

Schools, service clubs, recreation and nature clubs, church groups, scouts and guides, individuals and neighbours were invited to participate in the community involvement and engagement programs. The Mohawk Lake Revitalization Plan Report identified the following characteristics for Mohawk Lake:

- Short hydraulic removal time for sediment in the lake since the lake is small;
- Low transparency due to high turbidity resulting from algae and suspended sediments;
- Minimal thermal stratifications/layers;
- Chemical stratification (layers of different organic and inorganic material) is non-existent;
- Benthos (a community of organisms that live near the lake bed) species that burrow beneath the mud surface;

- A large urbanized watershed; and
- Negative thermal impacts in the summer months.

#### 5.4.9 Mohawk Lake Land Use Planning Study (1987)

The purpose of the Mohawk Lake Land Use Planning Study (1987) was to provide the Mohawk Lake Steering Sub-Committee of the Waterfront Advisory Committee with a concept plan and sketches, as well as recommendations for the development and implementation of the framework for recreational usage of Mohawk Lake and Canal area. This study helped establish the foundation for what is now considered Mohawk Park by recommending conservation initiatives to protect and enhance the social and natural aspects of Mohawk Lake.

Two public meetings were held as part of this study to gather input on the vision for Mohawk Lake and Canal area. Most attendees expressed they would like the area to remain as natural as possible, which included enhancements to the natural attributes as opposed to human-made attributes.

Among the numerous recommendations coming out of this work, those that have particular relevance to the current study include:

- Develop Mohawk Lake and Canal for recreational purposes, improve water quality, and provide for boating, fishing, swimming, walking/hiking, and viewing opportunities.
- Enhance the natural attributes of the Study Area and keep recreational development of the Mohawk Lake and Canal area as natural as possible.
- Accommodate the full spectrum of ages and socio-economic groups.
- Recognize and interpret the historical and cultural past of the Study Area.
- Retain and enhance all existing wildlife habitat in the Study Area.

## 6.0 Preferred Remedial Alternatives

Based upon the evaluation and assessment outlined in the Environmental Assessment Report for this project (ref. Environmental Assessment Report, Wood, 2020a), the preferred alternatives have been advanced based upon those works envisioned to be advanced in the short-term and those that would be expected to have a longer-term implementation timeframe, or those that would be contingent on additional study (field and/or analytical).

### 6.1 Short-Term (Approximately 2020+) Remedial Alternatives

#### 1. Design & Construction of Oil and Grit Separators (OGS)

- Implement the list of preferred locations premised on water quality sampling results and areas discharging directly to Mohawk Lake and Canal, among other factors (refer to list of twelve (12) preferred locations in the Subwatershed Stormwater Plan report)
- To manage runoff from Small scale catchments (generally <10 ha)
- To be Constructed in Public ROWs
- Schedule A/A+ works
- First three (3) priority locations to be constructed in 2020, remaining to be constructed at a rate of about one (1) per year (+/-)

#### 2. Incorporate Stormwater Management (Quality focus) into Roadway Reconstruction

- All roadway reconstruction in Mohawk Lake subwatershed to incorporate stormwater quality treatment going forward (source controls and/or end of pipe measures), targeting at least 50% average annual TSS removal
- Schedule A/A+ works

#### 3. Design of Mohawk Canal Restoration and Sediment Removal

- Potential to consider in logical phases for West Canal (downstream & upstream) – focus on upstream portion of West Canal first (higher priority), and downstream portion thereafter (lower priority).
- The East Canal is less of a priority given the overall lower contaminant concentrations and location downstream of Mohawk Lake. It is recommended that any works in this area potentially be combined with works within Mohawk Lake itself.
- Adopt natural channel design principles
- Incorporate Riparian plantings
- Co-ordinate with any hydraulic structure crossing improvements (Eagle Avenue/Alfred Street as the highest priority)
- Consider scoped/targeted sediment removal

- Consider an online, linear stormwater management facility in upper West Canal. Any potential ecological impacts, including fisheries enhancement opportunities would need to be considered further.
- Schedule B works – requires public and agency consultation

#### **4. Design and Construction of (Selected) Outfall Retrofits (SWM Facilities – Wet Ponds)**

- Advance short-listed/preferred SWMF outfall retrofits
  - OF-444A and OF-444B: Shallow Creek Park at upstream limits
  - OF-194: Shallow Creek Trail - Rawdon Street storm sewer to public land between Murray Street and Drummond Street north of the trail
- Consider feasibility of other opportunities for outfall retrofits
  - OF-222: Six Nations Land (Glebe Farm property) – requires further discussions with landowner to determine potential feasibility
  - Arrowdale Public Golf Course – requires further review/discussion with City of Brantford (given planned sale and re-development of these lands)

#### **5. Assessment/Preliminary Design of Mohawk Lake (and East Canal) Sediment Removal and Lake Bed Re-contouring**

- Additional assessment required to determine ecological and limnological linkages to lake health. Information will provide direction to locations of strategic sediment removal and also configuration of lake bed recontouring (field/analytic) and lake levels to optimize function/health and improve sustainability
- The East Canal is less of a priority given the overall lower contaminant concentrations and location downstream of Mohawk Lake. It is recommended that any works in this area potentially be combined with works within Mohawk Lake itself.
- Develop preliminary detail on preferred management approach
- Schedule B works – requires public and agency consultation

#### **6. Stormwater Management for Redeveloping Lands (Infill/Intensification – Privately-led)**

- Create policy to establish stormwater management criteria for redevelopment lands in Mohawk Lake Subwatershed
- Proposed “Enhanced” (80% average annual TSS removal) water quality treatment
- Incorporate erosion control and quantity control
- Ensure treatment is for whole of property (not just area of change) to recover capacity in system

## 7. Public Education

- Prepare materials focused on Mohawk Lake area residents and businesses to encourage engagement on practices which the public can implement

## 8. Wildlife Management (Carp Exclusion)

- Conduct a field study into resident carp invasive species within Mohawk Lake
- Develop appropriate management opportunities including potential modification of Mohawk Lake outfall.

## 9. Study to Isolate Locations of Sanitary Cross-Connections

- Need to locate where connections are and the potential remediation opportunities
- Focus on identified location from Characterization Study (Aquafor Beech Limited, 2019) – Rawdon Street and Bruce Street area

## 6.2 Medium to Long-Term (Approximately 2022-2029) Remedial Alternatives

1. Construction of West Canal Restoration, Clean-Out and Retrofit (Upstream Section of West Canal)
2. Design and Potential Construction of West Mohawk Canal Restoration and Clean-Out (Downstream Section of West Canal)
3. Construction of Mohawk Lake (and East Mohawk Canal) Strategic Sediment Removal and Lake Bed Re-contouring
4. Construction of Wildlife Management (Carp Exclusion)
5. Construction of Balance Outfall Retrofits
6. Incentive-based program for retrofitting existing properties with SWM practices
7. Ongoing Stormwater Management for Redeveloping Lands (Infill/Intensification)
8. Incorporate Stormwater Management, particularly stormwater quality (including Low Impact Development (LID) design elements and end of pipe measures) into Road Reconstruction (Ongoing)
9. Ongoing Investigation and Disconnection of Cross-Connections (Storm and Sanitary sewers)
10. Study and Construct Landfill Contamination Migration Potential to Mohawk Lake
  - Install field instrumentation upstream and downstream of area landfills to isolate extent, magnitude and severity of potential lake contamination
  - Based on field work, establish preliminary management practices (leachate management)

## 11. Street Management

- Consider enhanced frequency of street sweeping in Mohawk Lake Subwatershed.
- Develop and implement a Road Salt Management Plan for the subwatershed, or potentially City-Wide. Limit use of road salt to the extent possible; review potential alternative measures.

## 7.0 Implementation

### 7.1 Preliminary Guidelines and Criteria

#### 7.1.1 Existing Land Uses

The preferred solution considers potential enhancements (retrofits) to existing land uses to address current contaminant loading of Mohawk Canal and Mohawk Lake including:

##### 7.1.1.1 Existing Private Properties

Homeowners and existing businesses should be encouraged to retrofit their properties to reduce off-site migration of contaminants, and also reduce or eliminate the use of contaminants such as pesticides, fertilizers and salt.

Private property owners should receive targeted educational material, and also be incentivized to take action at source. Some Ontario municipalities have implemented Stormwater Rates which provide rebates to those who implement works on their properties. Brantford currently does not have such a program, however, it may consider investigating the potential in the future.

##### 7.1.1.2 Existing Public Lands

The largest public holdings in any municipality relate to roadway ROW's. Roadways tend to be the primary sources of non-point urban contaminants. As noted, the preferred solution considers establishing focused and contemporary stormwater quality management for all future reconstruction projects in the Mohawk Lake Subwatershed. The City may consider placing a higher priority on these projects versus others across the City, in comparatively lower risk areas.

Furthermore, the City should also consider retroactive application of stormwater quality controls for its public lands, including parks, municipal facilities and other properties.

##### 7.1.1.3 Existing/Legacy Landfills

As noted in the Characterization Study, numerous landfills are in proximity to the Mohawk Lake and several are suspected of potentially impacting lake water quality and health. The exact extent and significance of these contributions remains uncertain and it is recommended that further studies be conducted to address these uncertainties.

#### 7.1.2 Future Land Uses

Several areas within the Mohawk Lake Subwatershed have been identified for redevelopment (infill/ intensification). These lands represent an excellent opportunity for application of new stormwater management for lands which currently have no treatment. The potential for benefits is significant and the costs to the public is negligible, as the works would be expected to be built and financed by new development.

### 7.2 Mitigation and Monitoring Plan

As noted earlier, the impacts associated with the implementation of the preferred solution is anticipated to influence a number of features, functions and characteristics



associated with the Mohawk Lake and Canal environs (ref. Table 7-1). Mitigation and monitoring associated with each Category/Discipline have been noted accordingly in the tabular summary for consideration by the City at the implementation stage.

**Table 7-1: Impact Analysis Summary and Mitigation and Monitoring Summary**

Category/ Discipline	General Impacts	Impact Assessment		Mitigation and Monitoring
		Direct	Indirect	
Cultural Heritage and Archaeology	Restrictions on development and site alterations	Restrictions on development due to CHL designation  Buffers required for sites of archaeological significance	Additional Archaeological Assessment required (at minimum Stage 1 AA)	Each project site will need to be cleared of any cultural heritage or archaeological constraints and conditions of development established accordingly.
Geology, Hydrogeology and Groundwater	Change in infiltration rates / groundwater recharge rates  Mobilization of groundwater contamination  Erosion of soils	Change in groundwater discharge in both quantity and quality to Mohawk Lake and canal (IPZ 2/3)  Runoff with high, and potentially contaminated suspended load, being discharged to Mohawk Lake and canal (IPZ 2/3)		Each project should include further locally directed study to determine the potential influence on groundwater either to, or from, the implementation of the subject remediation works. It may, in certain settings, be necessary to install monitoring wells long-term to track local changes.
Hydrology and Stormwater Management	Increase or decrease in	Change in operation of Mohawk Lake,	Potential ecological impacts from	The City should consider baseline

**Table 7-1: Impact Analysis Summary and Mitigation and Monitoring Summary**

Category/ Discipline	General Impacts	Impact Assessment		Mitigation and Monitoring
		Direct	Indirect	
	flows and volumes  Change in water balance	including water levels, durations, circulation  Impacts to watercourse erosion  Changes to groundwater	changes in operation of Mohawk Lake	quantity and quality monitoring at selected outfalls to Mohawk Lake and Mohawk Canal, with the intent to establish current conditions and thereby monitor/track the improvements due to the implemented works.
Hydraulics	Flooding extents/impacts to adjacent lands  Changes in operation of Mohawk Lake under more frequent storm events	Flooding extents/impacts to adjacent lands  Changes in operation of Mohawk Lake under more frequent storm events		A continuous lake level monitoring system at the inlet to the Lake (mouth of canal) and at the outlet (control structure) would provide valuable data on seasonal variations in lake levels and thereby also provide a basis to update and maintain the local hydrologic and hydraulic models.

**Table 7-1: Impact Analysis Summary and Mitigation and Monitoring Summary**

Category/ Discipline	General Impacts	Impact Assessment		Mitigation and Monitoring
		Direct	Indirect	
Fluvial Geomorphology	Erosion of soils Sedimentation	Channel reconfiguration restricted by CHL and PSW designation  Stormwater management controls for development to reduce sedimentation and erosion	Development restricted by regulation limit, Erosion & Hazard Limit SPA, and floodline	Post-construction stream restoration projects should incorporate a set of control cross-sections to monitor on-going stream adjustments and ensure that erosion remains within acceptable limits.
Water Quality	Impaired water quality	Water quality impaired most significantly in West Canal  Pollutant sources require identification	Water quality impacted by sediment contamination	As noted earlier, a long-term/continuous water quality sampling program at outfalls and in-lake (inlet/outlet) would serve as a baseline to monitor improvements one time with the objective to use adaptive management practices to address the need to any potential supplemental intervention.

**Table 7-1: Impact Analysis Summary and Mitigation and Monitoring Summary**

Category/ Discipline	General Impacts	Impact Assessment		Mitigation and Monitoring
		Direct	Indirect	
Sediment Quantity and Quality	Significant sedimentation  Impaired sediment quality	Sediment quality impaired most significantly in West Canal  Potential contaminant mobilization	Additional studies required to identify primary sediment source  Dredging and channel reconfiguration influenced by contaminant mobilization	The Characterization Study collected bathymetric data for the lake/canal. While considered adequate for this study, further subsurface profiling is recommended to serve as a baseline prior to advancing any strategic sediment removal. Similarly, additional testing is also recommended to further isolate the most severely impaired contaminants.
Natural Heritage	Restrictions on development and site alteration due to natural heritage designations (PSW, SAR, SWH)	Mohawk Lake and Oxbow Wetland PSW Designation  SWH and Rare Vegetation Community  environmental permits and	Additional survey requirements  Habitat compensation  Construction timing windows	Further environmental data collection is recommended to establish current local habitat conditions and gauge

**Table 7-1: Impact Analysis Summary and Mitigation and Monitoring Summary**

Category/ Discipline	General Impacts	Impact Assessment		Mitigation and Monitoring
		Direct	Indirect	
		associated restrictions		improvements over time.

### 7.3 Environmental Protection Plan Framework

Based on the current and future infrastructure requirements and land use needs and restrictions identified for Mohawk Lake and the Mohawk Canal area, a framework for the preparation of an Environmental Protection Plan (EPP) has been developed (Appendix C). The EPP framework has been developed considering the environmental concerns and mitigation/monitoring measures; sustainable best management practices for stormwater, land use policy directives discussed in this report, and Sustainability/Climate Change adaptation measures. The EPP framework provides protection measures for the following:

- Cultural Heritage and Archaeology
- Geology, Hydrogeology and Groundwater
- Hydrology and Stormwater Management
- Erosion and Sediment Control and Water Quality
- Wildlife

### 7.4 Climate Change Adaptation and Sustainability

On November 12, 2019, the City Council unanimously voted in favour of passing a resolution declaring a climate emergency. At the same meeting, an initial framework was tabled for a Climate Change Action Plan (CCAP) for the City to reduce its greenhouse gas emissions. An element of this framework included a campaign aimed at awareness of climate change and the importance of sustainability.

Climate change, climate resilience and sustainability issues are interrelated concepts. Climate resilience embodies the capacity for a system to absorb stresses and maintain its function in the face of external stresses driven by a changing climate and, as well, to adapt, and evolve into more alternative configurations that improve the sustainability of the system, leaving it better prepared for future climate change impacts. A frequently quoted definition of sustainability is from *Our Common Future*, which is also referred to as the Brundtland Report (1987), namely:

*"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."*

In addition to natural resources, sustainability also gives consideration to the interconnectedness of social and economic resources in recognition that all of these elements of communities are interlinked. Sustainability is not just environmentalism and

can integrate the broader themes of social equity and economic development. Sustainability is about a reconciliation between environmental, social and economic demands to ensure that society has the economic prosperity and stability to enable people to maintain or improve quality of life, protect the environment and promote a prosperous and competitive economy.

Climate resilience and sustainability are processes that encompass all that humans do as individuals and as a community in interacting with their surroundings. These processes seek to find the smart solution that will benefit individuals, society and the environment over the longest period of time. Another way of describing sustainability at a project level is conducting activities in the right manner, rather than adopting an easy, short-term solution.

In this context, climate resilience and sustainability are clearly aligned with the overall objective of the Project and the needs and visioning expressed by the community for this project.

The types of hazards typical for Brantford include extreme cold and heat, fire, flooding and storm and winter hazards. In Ontario, climate change impacts that are considered at local and regional scales may include:

- more variable and extreme local weather events such as heavy rains and prolonged droughts
- stressed and vulnerable ecosystems, wildlife and their habitats
- additional private and public costs associated with industries such as tourism and agriculture
- public health risks from an increase in hotter weather, more flooding, and insect-borne diseases
- increased damage to public infrastructure such as sidewalks, roads and bridges

The 2014 Provincial Policy Statement specifically notes that “The long-term prosperity and social well-being of Ontario depends upon planning for strong, sustainable and resilient communities for people of all ages, a clean and healthy environment, and a strong and competitive economy.” And further that, “Strong, liveable and healthy communities promote and enhance human health and social well-being, are economically and environmentally sound, and are resilient to climate change.”

The Ontario government’s proposed changes to the Provincial Policy Statement make more specific note of communities preparing for climate change by planning for “better adaptation and response to the impacts of a changing climate, which will vary from region to region”. Strong, liveable and healthy communities promote and enhance human health and social well-being, are economically and environmentally sound, and are resilient to climate change.” Further:

- “Healthy, liveable and safe communities are sustained by preparing for the regional and local impacts of a changing climate”
- “Infrastructure and public service facilities shall be provided in an efficient manner that prepares for the impacts of a changing climate while accommodating projected

needs”

- “Planning for stormwater management shall minimize erosion and changes in water balance, and prepare for the impacts of a changing climate through the effective management of stormwater”
- “Long-term economic prosperity should be supported by minimizing negative impacts from a changing climate and considering the ecological benefits provided by nature”
- “Planning authorities shall protect, improve or restore the quality and quantity of water by evaluating and preparing for the impacts of a changing climate to water resource systems at the watershed level”
- “Planning authorities shall prepare for the impacts of a changing climate that may increase the risk associated with natural hazards”

Clearly, the risks posed by a changing climate must be assessed and addressed through integration of resilience features in design of the remedial measures proposed for the Project. Further, the application of sustainable design principles will assist in developing solutions that will benefit the community, the City and its environment over the long term.

## 7.5 Staging and Costs

### 7.5.1 Short Term Projects (2020+)

#### 7.5.1.1 Stormwater Management Strategy

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provide a summary of the estimated costing for Short-Term Stormwater Management Strategy Projects – (approximately 2020/2021). Detailed implementation plan and potential funding sources are discussed in Subwatershed Stormwater Plan (Wood, 2020b).

A key consideration is the availability of a Federal Government funding grant to support the construction of the highest priority measures in 2020/2021. This includes three (3) high priority OGS retrofits, and the Shallow Creek SWMF retrofit.

**Table 7-2: EA Recommended SWM Strategy – High Priority Measures for Short-Term Implementation Plan**

Priority	Project Type	Project ID	Location	Activity	Class EA	Estimated Cost
1	OGS Retrofits	TBD	3 Highest Priority Locations	Detailed Design	A/A+	\$465,000
2	SWMF Outfall Retrofits	1	Shallow Creek Park	Detailed Design	B	
3	Watercourse Restoration and Retrofit	N/A	Mohawk West Canal Restoration and Retrofit	Detailed Design	B	

**Table 7-2: EA Recommended SWM Strategy – High Priority Measures for Short-Term Implementation Plan**

Priority	Project Type	Project ID	Location	Activity	Class EA	Estimated Cost
			(Upstream)			
1 <sup>2</sup>	OGS Retrofits	TBD	3 Highest Priority Locations	Construction	N/A	\$900,000 <sup>1</sup>
2 <sup>2</sup>	SWMF Outfall Retrofits	1	Shallow Creek Park	Construction	N/A	\$4,500,000 <sup>1</sup>
3 <sup>2</sup>	Watercourse Restoration and Retrofit	N/A	Mohawk West Canal Restoration and Retrofit (Upstream)	Construction	N/A	TBD

1. Construction costs are conceptual estimates only (Class D Cost Estimate as per CCA guidelines) and assumes non-contaminated material for removal (with respect to SWMF outfall retrofits). Refer to Appendix E of the Subwatershed Stormwater Plan (Wood, 2020b) for cost breakdown. Construction cost estimate will be further refined as part of detailed design process
2. Refer to Environmental Assessment Report (Wood, 2020a) for further detail.
3. Construction priority same as design priority

**Table 7-3: EA Recommended SWM Strategy – Other Measures for Short-Term Implementation Plan**

Priority	Project Type	Project ID	Location	Activity	Class EA	Estimated Cost
4	Development SWM Policy	N/A	Subwatershed (or City-Wide)	SWM Requirements for Developments	N/A	\$0*
5	Cross-Connection Investigation	N/A	Rawdon Street and Bruce Street	Assessment and Potential Remediation	A/A+	\$50,000
6		N/A	Various areas of subwatershed	Assessment	A/A+	\$25,000
7	SWMF Outfall Retrofits	2	Shallow Creek Trail (Rawdon Street)	Detailed Design	B	\$150,000
8		4	Glebe Lands	Feasibility Review	N/A	\$20,000
9		5	Arrowdale Public Golf Course	Feasibility Review	N/A	\$20,000



**Table 7-3: EA Recommended SWM Strategy – Other Measures for Short-Term Implementation Plan**

Priority	Project Type	Project ID	Location	Activity	Class EA	Estimated Cost
10	OGS Retrofits	TBD	1 of Remaining High Priority Locations	Design and Construction	A/A+	\$300,000
11	SWM for Road Reconstruction	000870	Elgin Street (CN Overpass to Rawdon Street)	Design and Construction	A/A+	\$150,000
12		001344	Palace Street (Brant to Duke)	Design and Construction	A/A+	\$150,000
13		000349	Chatham Street (Stanley to Fourth)	Design and Construction	A/A+	\$150,000
14		001122	Drummond Street (Dead End to Park)	Design and Construction	A/A+	\$150,000
15		001490	Rawdon Street (Wellington to Grey)	Design and Construction	A/A+	\$150,000

### 7.5.1.2 Mohawk Lake and Mohawk Canal

#### 7.5.1.2.1 Mohawk Lake

The in-lake restoration alternatives evaluated for Mohawk Lake include dredging, capping, and strategic re-contouring. The specific need for implementation of these alternatives will need to be determined based on future contaminant risk evaluations and water quality data collection. Given the design and permitting complexity that is often associated with these types of projects, the estimated costs are provided as ranges. Furthermore, physical sediment characterization data are required to determine the necessary pumping and dewatering rates and appropriately size the required dredged material management area (DMMA), which will have a significant effect on estimated costs. Disposal costs can also have a significant effect on overall project cost and will be estimated as part of the preliminary design phase once potential disposal areas have been identified.

The estimated conceptual cost for hydraulic dredging within Mohawk Lake is between \$38 and \$52 per m<sup>3</sup> exclusive of material disposal cost. If all 155,000 m<sup>3</sup> of unconsolidated sediment were removed, the low estimate dredge cost could exceed \$6 to 7 Million, plus disposal.

Strategically targeted dredging of hot-spots could substantially decrease the overall costs. Mechanical dredging may also be an option if the water level can be manipulated

appropriately on Mohawk Lake. Mechanical dredging could range between \$26 and \$35 per m<sup>3</sup>, exclusive of material disposal cost. The cost of the removal of all unconsolidated material using mechanical dredging would range between \$3 and \$4 million plus disposal. Strategically targeted mechanical dredging could similarly reduce the amount of material to be managed.

The cost for clean sand to cap Mohawk Lake sediments would be approximately \$26 per m<sup>3</sup> depending on the nearest source. Assuming a 0.2-m cap over a 13 hectare dredging templates, would result in a total of 32,000 m<sup>3</sup> of clean sand, approaching a cost of \$1 Million. The efficacy of sand capping has not yet been determined and will need to be evaluated in a future effort.

Re-contouring can be achieved using a combination of any or all of the above alternatives, and cost would depend on the scale. It is conceivable that the targeted hydraulic dredging project could be reduced in size and scale with supplemental capping so that dredging could be reduced to a range between \$1,200,000 and \$1,620,000 (plus disposal) with \$416,000 in capping material. However, in this case, the smaller project scale may result in higher unit removal/placement costs, which could drive the overall project cost higher.

It should be noted that all of the preceding cost estimates are for removal only – they do not include disposal costs. Disposal costs would vary notably depending on the contamination level but would be expected to substantially increase the cost beyond the preceding base removal costs (i.e. \$100 to \$200 per m<sup>3</sup>). This would likely render full sediment removal cost-prohibitive, as such selected/strategic removal and re-contouring is generally considered a preferred approach.

#### 7.5.1.2.2 Mohawk Canal

For Mohawk Canal, many of the considerations with respect to sediment removal options (as discussed in Section 7.5.1.2.1 for Mohawk Lake) would again apply. The choice of potential removal methodology would need to take into account the overall proposed re-design for the channel. Depending on the scope of potential re-alignment (minor) and channel form changes, as well as proposed riparian plantings, different methodologies may be more logical to employ. If a full channel reconstruction is proposed, then removal in the dry (i.e. “dig and dump”) may be the most logical approach. If no major channel re-alignment works are proposed, then a hydraulic dredging approach is likely more logical. If a retrofit to provide online quality control treatment is proposed, the construction approach and cost would depend on the scope of the retrofit.

Similar to Mohawk Lake remediation, the quantity and location of sediment within Mohawk Canal which may need to be removed also requires further consideration and would need to be determined as part of subsequent design efforts. Overall, the quantity of accumulated sediment within Mohawk Canal is notably less than the Lake (30,000 m<sup>3</sup> as compared to 155,000 m<sup>3</sup>), which may render it more financially viable in the short to medium term.

It is recommended that the immediate focus involve the West Canal, given its greater potential to mobilize material into Mohawk Lake, and also the identified issues with

sedimentation and sediment quality, including most recently within the Characterization Study (Aquafor Beech, October 2019). Elevated concentrations of metals were noted within the lowest sediment depth in the West Canal. In addition, overall the highest PAH concentrations were noted in the West Canal, for all three (3) sampling horizons. This further suggests there is high value in sediment removal from the West Canal.

Based on synergies with the planned works in Shallow Creek Park, the potential to incorporate SWM treatment at an upstream location), and other matters related to property ownership and ecological constraints, it is suggested that the short-term focus be upon the most upstream section – i.e. from Shallow Creek to Drummond Street, approximately 1 km +/- in length.

Future work should consider the City’s planned hydraulic structure upgrades along the West Mohawk Canal. As per the Subwatershed Stormwater Plan Report (Wood, 2020a), the Alfred Street crossing in particular is undersized, and the reconstruction of a much wider open span type structure should be combined with associated channel reconstruction works. This section of the West Canal will also require particular consideration for trail linkages.

The downstream portion of West Mohawk Canal (i.e. from Drummond Street to Mohawk Lake) should be considered thereafter. In particular, ownership constraints in this area (i.e. the Glebe Lands are owned by the Six Nations of the Grand River) and would require a collaborative approach. Further, the existing wetland on the north shore of the downstream portion of the West Canal was previously recommended to be designated as a Provincially Significant Wetland (PSW), and would require further consideration including buffer requirements.

The East Canal is less of a priority given the overall lower contaminant concentrations and location downstream of Mohawk Lake. It is recommended that any works in this area potentially be combined with works within Mohawk Lake itself.

Given the uncertainty with respect to final scope of works and potential sediment removal requirements, no cost estimates have currently been generated for the Mohawk Canal restoration works. Sediment removal and disposal costs would be consistent with those discussed previously in Section 9.2.1.2.1. Assuming full removal of all accumulated sediment within Mohawk Canal, removal alone would be expected to cost some \$1.5M; disposal costs could be a further \$6M, not including other constructions costs and the previously noted restoration/channel works. Updated costs estimates should be prepared as part of future design scopes.

Table 7-4: EA Recommended Mohawk Lake and Mohawk Canal Strategy – Short Term Implementation Plan					
Project Type	Project ID	Location	Activity	Class EA	Estimated Cost
Strategic Sediment Removal and Lake Bed Recontouring	N/A	Mohawk Lake (and East Canal)	Assessment / Preliminary Design	Schedule B	TBD
Study /	N/A	Mohawk	Field Study into	Schedule B	TBD

Table 7-4: EA Recommended Mohawk Lake and Mohawk Canal Strategy – Short Term Implementation Plan					
Project Type	Project ID	Location	Activity	Class EA	Estimated Cost
Wildlife Management		Lake	Carp Invasive Studies		

## 7.5.2 Medium to Long-Term Projects (2022 to 2029)

### 7.5.2.1 Stormwater Management Strategy

Table 7-5 provides a summary of the estimated cost for Medium to Long-Term Stormwater Management Strategy Projects – (approximately 2022-2029).

Construction of the proposed Rawdon Street (Shallow Creek Trail) SWMF Outfall retrofit is the largest budget item with respect to medium to long-term projects and would require specific consideration of potential funding sources.

A key unknown relates to the potential construction costs associated with SWMF outfall retrofits at sites 4 and 5 (i.e. Glebe Lands and Arrowdale Golf Course). As noted previously, the potential construction of Sites 4 and 5 remains preliminary and would require a feasibility assessment and consultation, which is proposed to be completed as part of the short-term works. More detailed cost estimates for these projects would be developed as part of those feasibility assessments.

Beyond the estimated annual additional SWM costs for road reconstructions, certain types of projects reflect the same typical annual works – one (1) OGS retrofit per year (\$300,000 annually – Class D Cost Estimate as noted previously; should be refined as part of detailed design) and cross-connection investigations (\$25,000 annually), as well as the estimated budget for additional SWM measures for roadway reconstruction projects (\$150,000 to \$300,000 depending on the estimated project extents).

Table 7-5: EA Recommended SWM Strategy – Medium to Long-Term Implementation Plan						
Priority	Project Type	Project ID	Location	Activity	Class EA	Estimated Cost
20	SWMF Outfall Retrofits	2	Shallow Creek Trail (Rawdon Street)	Construction	N/A	\$4,700,000 <sup>1</sup>
21		5	Arrowdale Public Golf Course	Detailed Design <sup>2</sup>	B	\$150,000
22		4	Glebe Lands	Detailed Design <sup>2</sup>	B	\$200,000
23		5	Arrowdale Public Golf Course	Construction*	N/A	TBC <sup>2</sup>
24		4	Glebe Lands	Construction*	N/A	TBC <sup>2</sup>

**Table 7-5: EA Recommended SWM Strategy – Medium to Long-Term Implementation Plan**

Priority	Project Type	Project ID	Location	Activity	Class EA	Estimated Cost
25	OGS Retrofits	TBD	Remaining High Priority Locations (1 per year - 8 total)	Design and Construction	A/A+	\$2,400,000 <sup>1</sup>
26	Cross-Connection Investigation	N/A	Various areas of subwatershed (annual review)	Annual Assessment	A/A+	\$200,000
27	Studies	N/A	Subwatershed (or City-Wide)	Street Sweeping - Policy and Capability Review	N/A	\$0*
28		N/A	Entire Subwatershed (Potentially City-Wide)	Road Salt Management Plan	N/A	\$50,000
29		N/A	Subwatershed (or City-Wide)	Landfill Contamination Study	N/A	\$100,000
30	SWM for Road Reconstruction	000068	Buffalo Street (Rushton to West)	Design and Construction	A/A+	\$150,000
31	SWM for Road Reconstruction	000343	Grey Street (Fourth to Wayne Gretzky)	Design and Construction	A/A+	\$150,000
32	SWM for Road Reconstruction	001135	Nelson Street (Stanley to Park)	Design and Construction	A/A+	\$150,000
33	SWM for Road Reconstruction	001343	Drummond Street (Dalhousie to Chatham)	Design and Construction	A/A+	\$150,000
34	SWM for Road Reconstruction	001190	Charlotte Street (Dalhousie to Colborne)	Design and Construction	A/A+	\$150,000
35	SWM for Road Reconstruction	001190	Clarence Street (Dalhousie to Colborne)	Design and Construction	A/A+	\$150,000

**Table 7-5: EA Recommended SWM Strategy – Medium to Long-Term Implementation Plan**

Priority	Project Type	Project ID	Location	Activity	Class EA	Estimated Cost
36	SWM for Road Reconstruction	001190	Colborne Street (Brant to Dalhousie)	Design and Construction	A/A+	\$300,000
37	SWM for Road Reconstruction	001190	Dalhousie Street (Brant to Colborne)	Design and Construction	A/A+	\$300,000
38	SWM for Road Reconstruction	001190	King Street (Dalhousie to Colborne)	Design and Construction	A/A+	\$150,000
39	SWM for Road Reconstruction	001190	Queen Street (Dalhousie to Colborne)	Design and Construction	A/A+	\$150,000
40	SWM for Road Reconstruction	001149	Chatham Street (Park to Murray)	Design and Construction	A/A+	\$150,000
41	SWM for Road Reconstruction	000971	Clarence Street (Colborne to West)	Design and Construction	A/A+	\$300,000
42	SWM for Road Reconstruction	000338	Sheridan Street (Rawdon to Fourth)	Design and Construction	A/A+	\$150,000
43	SWM for Road Reconstruction	001345	Pearl Street (St James to West)	Design and Construction	A/A+	\$150,000
44	SWM for Road Reconstruction	000832	Wayne Gretzky Parkway (Lynden to Colborne)	Design and Construction	A/A+	\$300,000
45	SWM for Road Reconstruction	000406	Alfred Street (Colborne to Dalhousie)	Design and Construction	A/A+	\$150,000
46	SWM for Road Reconstruction	001342	Aylmer Street (Darling to Chatham)	Design and Construction	A/A+	\$150,000
47	SWM for Road Reconstruction	000015	Brighton Ave (Huron to Superior)	Design and Construction	A/A+	\$150,000
48	SWM for Road Reconstruction	001139	Darling Street (Queen to Market)	Design and Construction	A/A+	\$150,000

**Table 7-5: EA Recommended SWM Strategy – Medium to Long-Term Implementation Plan**

Priority	Project Type	Project ID	Location	Activity	Class EA	Estimated Cost
49	SWM for Road Reconstruction	001347	Dundas Street (St Paul to West)	Design and Construction	A/A+	\$150,000
50	SWM for Road Reconstruction	00905 and 00906	Stanley Street and Rawdon Street	Design and Construction	A/A+	\$150,000
51	SWM for Road Reconstruction	001142	Usher Street (Main to Dead End)	Design and Construction	A/A+	\$150,000
52	SWM for Road Reconstruction	001349	West Street (Dundas to Charing Cross)	Design and Construction	A/A+	\$150,000
53	SWM for Road Reconstruction	001306	Charing Cross Street (West to Henry)	Design and Construction	A/A+	\$150,000
54	SWM for Road Reconstruction	001138	Rawdon Street (Dalhousie to Wellington)	Design and Construction	A/A+	\$150,000

1. Construction costs are conceptual estimates only (Class D Cost Estimate as per CCA guidelines) and assumes non-contaminated material for removal (with respect to SWMF outfall retrofits). Refer to Appendix E of the Subwatershed Stormwater Plan (Wood, 2020b) for cost breakdown. Construction cost estimate will be further refined as part of detailed design process
2. Design costs for SWMF retrofits 4 and 5 are preliminary only and subject to outcomes of further investigations/studies/agreements. Given the uncertainty no construction cost estimates have been prepared for these alternatives.

### 7.5.2.2 Mohawk Lake and Mohawk Canal

Table 9-6 lists the Medium to Long-Term Projects for Mohawk Lake and Mohawk Canal – (approximately 2022-2029). A high-level discussion with respect to clean-out costing was provided previously in Section 7.2.1.2.

**Table 7-6: EA Recommended Mohawk Lake and Mohawk Canal Strategy – Medium to Long-Term Implementation Plan**

Project Type	Project ID	Location	Activity	Class EA	Estimated Cost
Strategic Sediment Removal and Lake Bed Recontouring	N/A	Mohawk Lake (and East Canal)	Detailed Design and Construction	Schedule B	TBD

Table 7-6: EA Recommended Mohawk Lake and Mohawk Canal Strategy – Medium to Long-Term Implementation Plan					
Project Type	Project ID	Location	Activity	Class EA	Estimated Cost
Wildlife Management	N/A	Mohawk Lake	Detailed Design and Construction of Carp Control Measures	Schedule B	TBD
Strategic Sediment Removal, Channel Naturalization	N/A	West Canal (Downstream Portion)	Study, Detailed Design and Construction of West Mohawk Canal Restoration	Schedule B	TBD

## 7.6 Long Term Community Engagement Plan

The purpose of the long-term community engagement plan is to keep the community informed and engaged of progress of the on-going Mohawk Lake and Mohawk Canal remedial activities, including providing notification, information on plans and schedules and events that present opportunities to learn about and provide feedback on the project.

### 7.6.1 General Communication Guidelines

It is recommended that updates on the design and construction phases be communicated through the City’s website (<https://www.brantford.ca/en/your-government/mohawk-lake-and-mohawk-canal-cleanup-and-rehabilitation-project.aspx>) at regular intervals (e.g., quarterly) and when major work has been completed. This includes posting communication materials (e.g., notices, frequently asked questions) to the website as well as sharing information via social media. The City may consider other opportunities to share information, such as a permanent display at Mohawk Lake Pavilion. The Mohawk Lake Pavilion is proposed to have a permanent display showing the history, short-term and long-term activities and schedules. It is recommended that related community events be held at the Mohawk Lake Pavilion, due to the proximity to Mohawk Lake and Mohawk Canal.

It is recommended that information packages be provided to key Project Team members and community leaders, including Mayor and Council, to promote consistent messaging and build a group of knowledge holders.

It is recommended that the Mohawk Lake Working Group membership be expanded to offer participation to the Mississaugas of the Credit First Nation as well as up to two additional community members. It is anticipated that the Mohawk Lake Working Group will have greater involvement during key intervals in the construction phase that may warrant more frequent meetings.

It is recommended that a more detailed long-term engagement plan be developed based on the selection of proposed projects and engagement of the Mohawk Lake Working Group, Six Nations of the Grand River and Mississaugas of the Credit First Nation.



### 7.6.2 Roles and Responsibilities

For the design and construction phases of the proposed projects, various parties will be involved and hold critical roles. These parties will be subject to a number of communication responsibilities. As each proposed project progresses, the list of parties will evolve, and the communication responsibilities may expand based on feedback from the public and changes to the project. Table 7-7 provides an overview of the parties and corresponding responsibilities.

Table 7-7: Roles and Responsibilities	
Involved Parties and Role(s)	Communication Responsibilities
City of Brantford	<ul style="list-style-type: none"> <li>• Maintain and update a Contact List and provide to all parties.</li> <li>• Maintain the communication and engagement database for the Project.</li> <li>• Define and promote clear lines of communication and processes.</li> <li>• Track and report environmental compliance associated with environmental assessment and related commitments.</li> <li>• Define and manage a Complaint Resolutions Process and document external complaints registered to the Project.</li> </ul>
City Consultant (Owner’s Engineer)	<ul style="list-style-type: none"> <li>• Prepare monthly and yearly summary reports</li> <li>• Identify in subsequent reports how identified actions were / were not carried out and their effectiveness.</li> </ul>
City Council	<ul style="list-style-type: none"> <li>• Communicate Project-related information to constituents</li> </ul>
Local MP / MPP	<ul style="list-style-type: none"> <li>• Communicate Project-related information to constituents</li> </ul>
Contractor	<ul style="list-style-type: none"> <li>• Provide Records of Engagement on an ongoing basis.</li> <li>• Monitor and report on contractual commitments</li> </ul>

### 7.6.3 Communication and Engagement activities

The following presents some activities, the associated level of engagement (following the International Association for Public Participation protocols) and their details.

**Table 7-8: Communication and Engagement Activities**

Activity	Level of Engagement	Description
Notifications	Inform	Notifications, such as notice of detailed design or construction activities or opportunities to provide input are recommended to be provided on the City’s website and distributed through social media (Facebook and Twitter). Notifications will also be posted at the Mohawk Lake Pavilion.
Repositories	Inform	Relevant information is recommended to be made available at City Hall, on the City’s website and through a kiosk display at the Mohawk Lake Pavilion.
Frequently Asked Questions (FAQs)	Inform	A FAQ document is useful for addressing the most prevalent questions asked, dispelling myths, and addressing difficult questions. This may include questions about the design process, various construction activities and construction equipment used. Based on the feedback received, a FAQs document is recommended to be developed and posted on the website and at the Mohawk Lake Pavilion. This information should be updated as required to reflect new information available.
Community Sessions	Consult	Community sessions with community leaders, such as members of the Mohawk Lake Working Group, Six Nations of the Grand River and Mississaugas of the Credit First Nation are proposed to be organized to inform communication and engagement, identify opportunities and challenges (and measures to enhance or mitigate these), and better inform overall design and construction process. These sessions are envisioned to be interactive sessions aimed at addressing key topics.
Contact Number	Inform / Consult	Establish a contact name and phone number (and / or email) for stakeholders and Indigenous groups to use to seek further information or provide feedback throughout the life of the project.  Inform the 311 call centre staff about the Study through the sharing of information and where it can be found.
Feedback Forms	Consult	Feedback gathered about proposed design and construction activities. Feedback should be evaluated and incorporated into this Plan and associated

**Table 7-8: Communication and Engagement Activities**

Activity	Level of Engagement	Description
		activities as applicable. Where feedback is consistent from stakeholders, specific activities should address these concerns to ensure transparency of the process.

#### 7.6.4 Complaints Resolutions Process

To document and manage complaints (also referred to as grievances) generated by Indigenous groups, general public stakeholders and community groups arising from activities related to the Project, a detailed complaints resolution process is recommended to be defined. The objective of this process is to strengthen communication and engagement through the communication process that is clear and account. Through this process, the City proposes to address external complaints received during Project.

This process is to outline:

- Project-specific obligations, approvals and agreements;
- Roles and responsibilities for the execution and management of this Complaint Resolution Process; and
- The frequency for review and revision.

#### 7.6.5 Community Participation

Members of public can participate in protecting the water quality of the Mohawk Lake and Mohawk Canal by undertaking a number of actions. Opportunities for community participation include:

- Promote water conservation efforts, such as water-efficient practices indoors (faucets, showerheads and toilets / flappers) and outdoors (rainbarrels, rain gardens and landscaping)
- Encourage reducing impervious surfaces (driveway etc.) to reduce runoff
- Share information about materials that safely disposed of down the drain (such as don't flush items, implement yellow fish road program and litter management) and what is safe to use outside (minimizing use of pesticides, fertilizer and de-icing salt)
- Promote maintenance of septic systems and leak detection
- Promote proper storage and use of fuels and chemicals as well as disposal of hazardous waste materials
- Create a Friends of the Mohawk Lake Working Group to encourage and organize a yearly clean-up of the lake, canal and park as well as around their neighbourhoods
- Encourage citizen scientists to provide the City with monitoring data

### 7.6.6 Design Phase

During the design phase, the communication and engagement activities will aim to inform and involve the community in understanding the design requirements. This will apply to all proposed projects, including:

- Mohawk Canal Restoration;
- Shallow Creek Retrofit;
- Oil and Grit Separators;
- Other Outfall Retrofits; and
- Mohawk Lake Sediment Removal and Lake Bed Re-contouring.

Through these activities, interested parties will have the opportunity to learn more about each of the proposed projects and provide feedback on the designs. Notifications of these opportunities will be provided. Depending on the level of detail required and opportunity for input, it is expected that these opportunities will include a mix of posting information for individual review, as well as interactive community sessions.

The design phase provides an opportunity for community-generated ideas and participation to inform detailed planning. Engagement with local schools and community groups will be considered. The City's website will be maintained with relevant materials and FAQs.

### 7.6.7 Construction Phase

During the construction phase, the community is proposed to be informed through information sharing via the City's website and social media. Depending on the specific proposed project, the construction contractor may also make information available via their website or social media.

Through these activities, interested parties will have the opportunity to learn more about each of the proposed projects including implementation details, construction details and schedule. Notifications of any closures or restrictions to land and resource use, noise or the similar is proposed to be made in advance and widely distributed. The City's website will be maintained with relevant materials and FAQs.

### 7.6.8 Post-Construction

During the post-construction phase, there will be opportunities to celebrate the proposed project completion. Depending on the specific proposed projects, celebrations may include ribbon cutting, community picnics, or similar.

### 7.6.9 Five Year Review

The long-term engagement plan is proposed to be integrated into the MCEA Master Plan review cycle recommended to take place every 5 years. The review will be based on the following considerations:

- Major changes to original long-term engagement plan;
- Major changes to components of the MCEA Master Plan;

- Significant new environmental effects; and
- Major changes in proposed timing of projects within the Master Plan.

The plan will take into consideration information gathered through engagement with the City and its stakeholders regarding their priorities and interests for Mohawk Lake and Mohawk Canal.

Additionally, the long-term engagement plan will be reviewed and evaluated on a quarterly and annual basis by the Project Team to allow for continuous improvement. Where required changes are identified, the long-term engagement plan will be updated and shared with all parties as a new version noting the key changes. The contact list will be separately updated and issued immediately upon any change.

The review and evaluation will include an assessment of the following areas:

- Whether objectives have been or are being achieved;
- How effective the planning and implementation have been;
- How effective the methods used have been;
- How efforts were made to answer question and resolve concerns;
- Whether risks were identified and well managed;
- Feedback from the Owners Engineer, Stakeholders, Council, MP / MPP; and
- How the information gained impacted on decisions made.

## 8.0 References

- Brundtland, 1987. Report of the World Commission on Environment and Development: Our Common Future, Brundtland, G., 1987. Available via URL: [www.un-documents.net/our-common-future.pdf](http://www.un-documents.net/our-common-future.pdf)
- Canadian Environmental Assessment Agency, 2016. Projects on Federal Lands: Making a determination under section 67 of the *Canadian Environmental Assessment Act, 2012*: <https://ceaa-acee.gc.ca/default.asp?lang=en&n=6E01A733-1&offset=4&toc=hide>
- Ministry of Municipal Affairs and Housing, 2009. Planning for Climate Change – InfoSheet: <http://www.mah.gov.on.ca/AssetFactory.aspx?did=7035>
- Ministry of Municipal Affairs and Housing, 2014. Provincial Policy Statement (2014): <https://www.ontario.ca/document/provincial-policy-statement-2014>
- Municipal Engineers Association, 2015. Municipal Class Environmental Assessment (October 2000, as amended in 2007, 2011 & 2015). Available at: <https://municipalclassea.ca/manual/page1.html>
- Wood Environment & Infrastructure Solutions. 2020a. Environmental Assessment Report. Mohawk Lake and Mohawk Canal Functional Master Drainage and Restoration Study.
- Wood Environment & Infrastructure Solutions. 2020b. Mohawk Lake and Mohawk Canal Subwatershed Stormwater Plan.



## **APPENDIX A:** Federal Environmental Assessment Determination



Canadian Environmental  
Assessment Agency

Ontario Region  
55 York Street,  
Suite 600  
Toronto ON M5J 1R7

Agence canadienne  
d'évaluation environnementale

Région de l'Ontario  
55, rue York,  
bureau 600  
Toronto ON M5J 1R7

March 20, 2019

Sent by email

Bob Felker  
Senior Environmental Planner  
Wood, Environment and Infrastructure Solutions  
[bob.felker@woodplc.com](mailto:bob.felker@woodplc.com)

Dear Mr. Felker:

**Re: Information on the *Canadian Environmental Assessment Act, 2012***

Thank you for your correspondence of February 22, 2019, regarding the Mohawk Lake and Mohawk Canal Clean Up and Rehabilitation Project.

The *Canadian Environmental Assessment Act, 2012* (CEAA 2012) focuses federal environmental reviews on projects that have the potential to cause significant adverse environmental effects in areas of federal jurisdiction and applies to physical activities described in the *Regulations Designating Physical Activities* (the Regulations). Based on the information provided, your project does not appear to be described in the Regulations. **Kindly review the requirements of CEAA 2012, including the Regulations.** Given the ongoing review of the federal environmental assessment process, if your project does not proceed immediately, please review your project against any future federal legislation and pursuant regulations to confirm applicability to your project.

If you believe the project is not subject to a federal environmental assessment, and do not submit a project description, we kindly request that you remove the Canadian Environmental Assessment Agency from your distribution list.

If you have questions, please get in touch with our office through the switchboard at 416-952-1576. The attachment that follows provides web links to useful legislation, regulation, and guidance documents.

Sincerely,

**Anjala Puvananathan, Regional Director**

Attachment – Useful Legislation, Regulation, and Guidance Documents





## **Attachment – Useful Legislation, Regulation, and Guidance Documents**

For more information on the *Canadian Environmental Assessment Act, 2012* (CEAA 2012), please access the following links on the Canadian Environmental Assessment Agency's (the Agency) website:

CEAA 2012

<https://www.canada.ca/en/environmental-assessment-agency/corporate/acts-regulations/legislation-regulations.html>

*Regulations Designating Physical Activities, and Prescribed Information for a Description of a Designated Project Regulations*

<https://www.canada.ca/en/environmental-assessment-agency/corporate/acts-regulations/legislation-regulations.html>

If your project is in a federally designated wildlife area or migratory bird sanctuary please check section 1 of the Regulations, which details the designated projects specific to those locations.

If it appears that CEAA 2012 may apply to your proposed project, you must provide the Agency with a description of the proposed project. Please see the link below to the Agency's guide to preparing a project description.

Guide to Preparing a Description of a Designated Project

<https://www.canada.ca/en/environmental-assessment-agency/services/policy-guidance/guide-preparing-description-designated-project-under-canadian-environmental-assessment-act-2012.html>

For information on the ongoing review of the federal environmental assessment process

<https://www.canada.ca/en/services/environment/conservation/assessments/environmental-reviews.html>



February 22, 2019

Canadian Environmental Assessment Agency – Ontario Region  
55 York Street, 6th Floor  
Toronto, ON M5J 1R7  
Sent by email: [CEAA.ontario.ACEE@ceaa-acee.gc.ca](mailto:CEAA.ontario.ACEE@ceaa-acee.gc.ca)

Dear Sir or Madam:

**RE: Request for CEAA 2012 Environmental Assessment Determination  
Mohawk Lake and Mohawk Canal Clean Up and Rehabilitation Project  
*Functional Master Drainage and Restoration Study***

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The City of Brantford (the City) is engaged in the Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project (the Project) with financial support from the Federal Economic Development Agency (FedDev) for Southern Ontario. As a component of this broader initiative the City is undertaking the subject Functional Master Drainage and Restoration Study to recommend sustainable solutions for rehabilitation and restoration of Mohawk Lake and Mohawk Canal.

A stipulation of the FedDev agreement is to confirm requirements under the *Canadian Environmental Assessment Act* (CEAA 2012) for the Project. To help support the Agency's determination we are attaching the study Notice of Commencement, which includes a map of the study area, and a description of the study process being undertaken to fulfil obligations under the *Ontario Environmental Assessment Act*.

As indicated in the Notice, the City has retained Wood Environment & Infrastructure Solutions (Wood) to complete a Municipal Class Environmental Assessment (Class EA) Schedule 'B process', to investigate how to improve the environmental quality of the lake and canal by managing stormwater runoff, providing better habitat for fish and wildlife and enhanced recreational opportunities. Anticipated deliverables of interest include:

- A Subwatershed Stormwater Plan focusing on runoff (quantity/quality) from the Mohawk Lake tributary's basin aimed at understanding the current water resources of Mohawk Lake and Canal, as well as future watershed system (based on intensified land uses)
- A Class EA Report to be carried out in accordance with provincial legislative requirements
- A Mohawk Lake and Canal Master Plan defining the management and restoration activities associated with environmental protection needs and related future park use, and,
- A Community and Agency Engagement program.

At this time we are requesting clarification as to whether or not the Functional Master Drainage and Restoration Study component of the Mohawk Lake and Mohawk Canal Clean Up and Rehabilitation Project is subject to CEAA. Should additional information be required to assist in this regard, we would be pleased to provide.

Sincerely yours,



**Nahed Ghbn, P.Eng.**

Senior Project Manager  
City of Brantford

Tel: 519-759-4150 ext. 5262

Email: [NGhbn@brantford.ca](mailto:NGhbn@brantford.ca)



**Bob Felker**

Senior Environmental Planner  
Wood, Environment and Infrastructure Solutions

Tel: (519) 650-7139

Email: [bob.felker@woodplc.com](mailto:bob.felker@woodplc.com)

c.c: Ron Scheckenberger, Wood, Mary Kelly, Wood, Matt Senior, Wood  
Encl: Notice of Commencement



## NOTICE OF COMMENCEMENT:

### Municipal Class Environmental Assessment

#### Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project

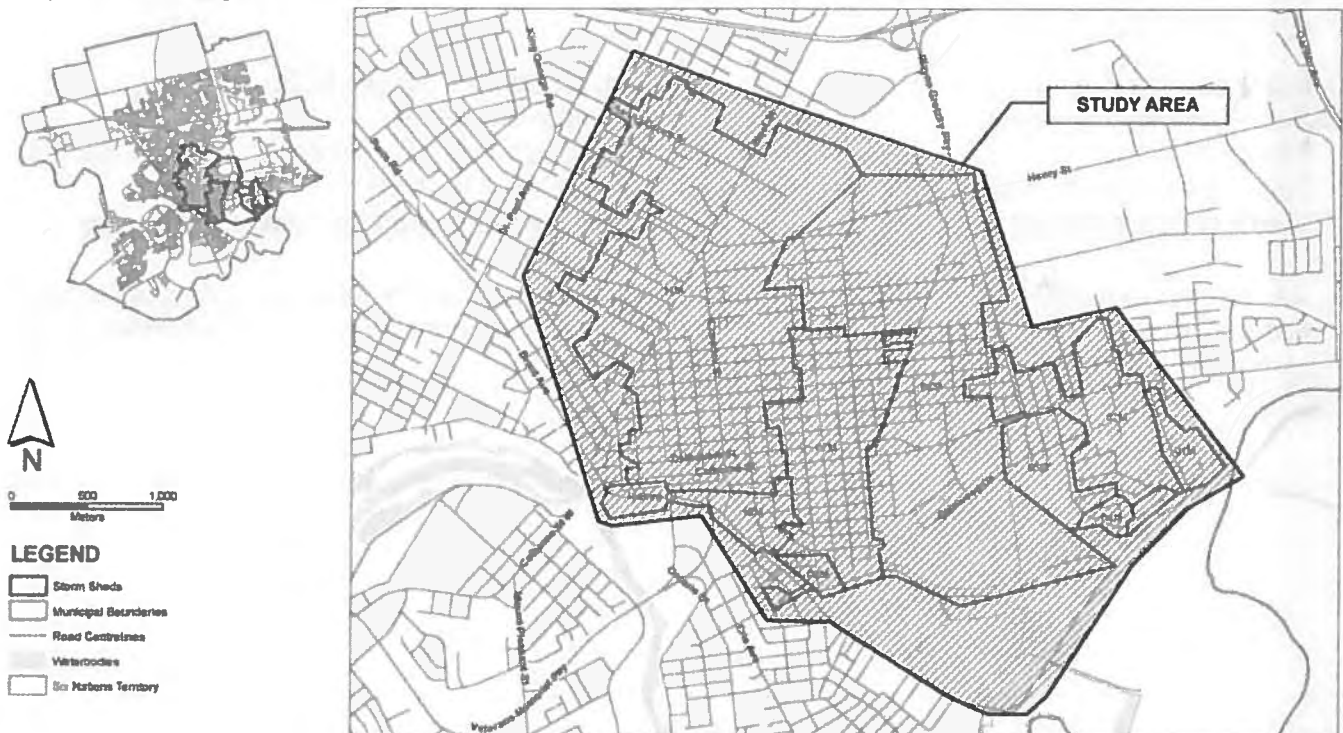
##### Functional Master Drainage and Restoration Study

#### The Project

The City of Brantford has initiated the Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project with financial support from the Federal Government. This project will identify rehabilitation measures needed to address accumulated sediments and provide opportunities / recommendations to improve the environmental quality of Mohawk Lake and Mohawk Canal, and protect and enhance its future in our community.

Mohawk Lake is located in an urban area with a drainage area of 839 hectares. The land use within the lake's drainage area is primarily residential and commercial with some industrial properties. Over time, the lake and canal's sediment and water quality have been impacted by stormwater and industrial discharge. Industrial discharges have been discontinued and cleanup efforts have been completed on brownfield lands upstream and adjacent to the canal, however the lake and canal are still negatively impacted. In 2018, the City initiated a Characterization Study documenting the existing physical and environmental conditions of the drainage network, lake, and canal for the study area shown in Figure 1.

Figure 1: Study Area



## **Environmental Assessment (EA)**

The Study is being carried out in accordance with the requirements necessary to receive federal funding and the Ontario Municipal Class Environmental Assessment (Class EA; Schedule "B"), as outlined in the Municipal Engineers Association's Municipal Class Environmental Assessment (October 2000, as amended in 2007, 2011 & 2015). This is an approved process under the Ontario *Environmental Assessment Act*.

The findings from the Characterization Study are expected in early 2019 and will provide background information that will inform various components of the Class EA. Under the Class EA, the City has commenced the investigation of how to improve the environmental quality in the lake and canal by managing stormwater runoff, providing better habitat for fish and wildlife and enhanced recreational opportunities. Anticipated deliverables of interest include:

- A Subwatershed Stormwater Plan focusing on runoff (quantity/quality) from the Mohawk Lake tributary's basin aimed at understanding the current water resources of Mohawk Lake and Canal, as well as future watershed system (based on intensified land uses)
- A Class EA Report to be carried out in accordance with provincial legislative requirements
- A Mohawk Lake and Canal Master Plan defining the management and restoration activities associated with environmental protection needs and related future park use.

## **Community Engagement**

Engagement with the community, agencies and Indigenous groups is considered a key part of any EA. Several opportunities for engagement will occur throughout the Class EA. Public meetings will be held to discuss issues and opportunities, including alternative solutions, evaluation criteria, environmental impacts and mitigation measures. The dates and details of these opportunities will be advertised as the Class EA progresses. You are encouraged to provide your comments to inform Study planning.

To submit a comment or question, or receive additional information related to the Class EA, or have accessibility requirements to participate in this Study, please contact one of the representatives below:

**Nahed Ghbn P.Eng.**  
Senior Project Manager  
City of Brantford  
Tel: 519-759-4150 ext. 5262  
Email: [NGhbn@brantford.ca](mailto:NGhbn@brantford.ca)

**Ron Scheckenberger M.Eng., P.Eng.**  
Principal Consultant  
Wood, Environment & Infrastructure Solutions  
Tel: 905-335-2353  
Email: [ron.scheckenberger@woodplc.com](mailto:ron.scheckenberger@woodplc.com)

*All information collected will be used in accordance with the Freedom of Information and Protection of Privacy Act, RSO, 1990, c.F.31. With the exception of personal information, all comments will become part of the public record.*

## Shams, Aniq

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**From:** Felker, Bob  
**Sent:** Wednesday, April 3, 2019 10:53 AM  
**To:** Nahed Ghbn  
**Cc:** Scheckenberger, Ron; Kelly, Mary K; Senior, Matt; Mcandrew, Louise; Shams, Aniq; Berenkey, Andrea  
**Subject:** FW: EMAIL - Brantford, Mohawk Lake and Mohawk Canal Clean Up - 2019-03-20  
**Attachments:** letter - CEAA to Felker - 2019-03-20.pdf

Hi Nahed, The Canadian Environmental Assessment Agency, through their Ontario Region office, has indicated that the Mohawk Lake and Mohawk Canal Clean Up project "does not appear" to be described in the regulations designating Physical Activities under the Canadian Environmental Assessment Act (2012).

Upon your review of the letter we can discuss how best to proceed given this determination.

Bob

### Bob Felker

O: 519-650-7139

M: 226-751-3854

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**From:** Ontario Region / Region d'Ontario (CEAA/ACEE) [mailto:ceaa.ontarioregion-regiondontario.acee@canada.ca]  
**Sent:** March-20-19 2:25 PM  
**To:** Felker, Bob <bob.felker@woodplc.com>  
**Subject:** EMAIL - Brantford, Mohawk Lake and Mohawk Canal Clean Up - 2019-03-20

Dear Mr. Felker,

Please find attached a letter regarding the above mentioned project.

Sincerely,

Jeremy Schultz

## Jeremy Schultz

Administrative Officer, Ontario Region  
Canadian Environmental Assessment Agency / Government of Canada  
[Jeremy.Schultz@canada.ca](mailto:Jeremy.Schultz@canada.ca) / Tel: 416-952-1576

Agente administrative, Bureau régional de l'Ontario  
Agence canadienne d'évaluation environnementale / Gouvernement du Canada  
[Jeremy.Schultz@canada.ca](mailto:Jeremy.Schultz@canada.ca) / Tél: 416-952-1576

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**APPENDIX B:** Consultation Materials

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**Mailing List**





AGENCY CONTACT LIST FOR E.A.'s  
(Updated as of **March, 2019**)

**CONSULTANTS TO MAIL:**

SECTION A .....Provincial Agencies

SECTION B.....Federal Agencies

SECTION C.....City of Brantford Council  
**(Email)**

SECTION D.....City Staff **(Email)**

SECTION E.....Municipalities

SECTION F.....Other Agencies

SECTION G.....Utilities



**AGENCY CONTACT LIST FOR E.A.'s  
(as of March, 2019)**

Agency Name		Contact Person
<b>A. Provincial Agencies</b>		
1	Ministry of the Environment, Conservation and Parks Ellen Fairclough Bldg 119 King Street West, 12 <sup>th</sup> Floor Hamilton, Ontario L8P 4Y7 Tel: 905-521-7864 Fax: 905-521-7820	Ms. Barbara Slattery Environmental Resource Planner & EA Coordinator Email: barbara.slattery@ontario.ca <b>* only Notice of Completion</b>
4	Ministry of Natural Resources and Forestry Guelph District Office 1 Stone Road West Guelph, Ontario N1G 4Y2 Tel: 519-826-4931 Fax: 519-826-4929	Ms. Tammy Verhaeghe District Manager Email: tammy.verhaeghe@ontario.ca  Cc: David Marriott, District Planner
5	Ministry of Tourism, Culture and Sport 401 Bay St. Suite 1700 Toronto, Ontario M7A 0A7	James Hamilton Manager of Heritage Program Unit Email: james.hamilton@ontario.ca James Tel: 416-212-7505  Laura Hatcher Heritage Planner, Cultural Services Email: laura.e.hatcher@ontario.ca Laura Tel: 416-314-3108
6	Ministry of Tourism, Culture & Sport 900 Highbury Avenue London, Ontario N5Y 1A4 Tel: 519- 675-6898 Fax: 519-675-7777	Shari Prowse Archaeology Review Officer Email: shari.prowse@ontario.ca
7	Ministry of Transportation 659 Exeter Road London, Ontario N6E 1L3 Tel: 519-873-4100	Neil Zohorsky Regional Director, West Region Email: neil.zohorsky@ontario.ca
9	Canadian Environmental Assessment Agency Ontario Region 55 York Street, 6 <sup>th</sup> Floor Toronto, Ontario M4T 1M2 Tel: 416-952-1576	Anjala Puvananathan Director Tel: 416-952-1575 Email: anjala.puvananathan@canada.ca



Agency Name		Contact Person
Fax: 416-952-1573		
10	Ministry of Municipal Affairs and Housing Western Municipal Services Office 659 Exeter Rd 2nd Floor London Ontario N6E 1L3 Tel: 519-873-4020 Fax: 416-585-6470	Ian Kerr Regional Director Email: <a href="mailto:ian.kerr@ontario.ca">ian.kerr@ontario.ca</a>
11	Ministry of Municipal Affairs and Housing 777 Bay Street, 14 <sup>th</sup> Floor Housing) 16 <sup>th</sup> Floor Municipal Services) Toronto, On M5G 2E5	Marcia Wallace Assistant Deputy Minister Municipal Services Division Tel: 416-585-6427
12	Ministry of Aboriginal Affairs McMurtry-Scott Building 720 Bay Street, 11th Floor Toronto, ON M7A 2S9 Tel: (416) 326-2220 Fax: (416) 326-4007	Counsel
13	Ministry of Indigenous Affairs 400 Bloor St E Suite 160 Toronto, Ontario M7A 2E6 (416) 327-4464	Hon. Greg Rickford Minister
14	Ministry of the Attorney General – Aboriginal Legal Issues Office Crown Law Office-Civil, 720 Bay Street, 8 <sup>th</sup> Floor Toronto, Ontario M5G 2K1 Tel: (416) 326-4008 Fax: (416) 326-4181	Michael Doi Director of Legal Services (416) 590 7149 Email: <a href="mailto:michael.doi@fsco.gov.on.ca">michael.doi@fsco.gov.on.ca</a>
<b>B Federal Agencies</b>		
1	Innovation, Science and Economic Development Canada C.D. Howe Building 235 Queen Street Ottawa, Ontario K1A 0H5	Hon. Navdeep Bains Minister of Innovation, Science and Economic Development Email: <a href="mailto:ised.minister-ministre.isde@canada.ca">ised.minister-ministre.isde@canada.ca</a>



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Canada  
Telephone (Ottawa): 613-954-5031  
Fax: 343-291-1913

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3	Indigenous and Northern Affairs Canada 10 Wellington, North Tower Gatineau, QC K1A 0H4 Tel: 1-800-567-9604 Fax: 1-866-817-3977	Hon. Carolyn Bennett Minister Email: minister@aadnc-aandc.gc.ca
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4	Indigenous Services Canada 25 St. Clair Avenue East, Toronto, Ontario M4T 1M2	Hon. Jane Philpott Minister of Indigenous Services
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5	Fisheries and Oceans Canada Central and Arctic Region 520 Exmouth Street Sarnia, ON, N7T 8B1 Toll-free: 1-866-290-3731 Telephone: 519-383-1809 Fax: 519-464-5128 Email: info@dfo-mpo.gc.ca	Regional Manager
---	---	------------------

### C. City of Brantford Council (Email)

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1	City of Brantford 100 Wellington Square P.O. Box 818 Brantford, Ontario N3T 5R7 Tel: 519-759-4150	Kevin Davis, Mayor Email: kdavis@brantford.ca Cc: RMatthews-Osmond@brantford.ca
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2	City of Brantford 100 Wellington Square P.O. Box 818 Brantford, Ontario N3T 5R7 Tel: 519-759-4150 Fax: 519-759-7840	City Councillors: Ward 1: Jan Vander Stelt Email: janvanderstelt@brantford.ca Ward 1: Rick Weaver Email: RickWeaver@brantford.ca Ward 2: John Sless Email: JohnSless@brantford.ca Ward 2: John Utley Email: JohnUtley@brantford.ca Ward 3: Dan McCreary Email: DanMcCreary@brantford.ca Ward 3: Greg Martin Email: GregMartin@brantford.ca Ward 4: Richard Carpenter
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Email: RichardCarpenter@brantford.ca  
Ward 4: Cheryl Antonski  
Email: CherylAntonski@brantford.ca  
Ward 5: Brian Van Tilborg  
Email: BrianVanTilborg@brantford.ca  
Ward 5: Joshua Wall  
Email: joshuawall@brantford.ca

#### D. City Staff (Email)

- 
- |   |   |   |
|---|---|---|
| 1 | City of Brantford<br>100 Wellington Square<br>P.O. Box 818<br>Brantford, Ontario<br>N3T 5R7<br>Tel: (519) 759-4150                        | Darryl Lee, Chief Administrative Officer<br>Email: DLee@brantford.ca                                |
| 2 | City of Brantford<br>100 Wellington Square<br>P.O. Box 818<br>Brantford, Ontario<br>N3T 5R7<br>Tel: (519) 759-4150                        | Russ Thomson, Director Building<br>Services, Chief Building Officer<br>Email: RThomson@brantford.ca |
| 3 | City of Brantford<br>City Clerk's Office<br>100 Wellington Square<br>P.O. Box 818<br>Brantford, Ontario<br>N3T 5R7<br>Tel: (519) 759-4150 | Charlene Touzel,<br>City Clerk & Director of Clerk Services<br>Email: ctouzel@brantford.ca          |
| 4 | City of Brantford<br>100 Wellington Square<br>P.O. Box 818<br>Brantford, Ontario<br>N3T 5R7<br>Tel: (519) 759-4150                        | Beth Goodger<br>General Manager Public Works<br>Email: BGoodger@brantford.ca                        |
| 5 | City of Brantford<br>100 Wellington Square<br>P.O. Box 818<br>Brantford, Ontario<br>N3T 5R7<br>Tel: (519) 759-4150                        | Paul Moore<br>General Manager Community<br>Development<br>Email: pmoore@brantford.ca                |
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6	City of Brantford 100 Wellington Square P.O. Box 818 Brantford, Ontario N3T 5R7 Tel: (519) 759-4150	Lucy Hives Director of Planning Email: LHives@brantford.ca
7	City of Brantford 100 Wellington Square P.O. Box 818 Brantford, Ontario N3T 5R7 Tel: (519) 759-4150	Catherine Brubacher General Manager Corporate Services/City Treasurer Email: CBrubacher@brantford
8	City of Brantford 220 Colborne Street Brantford, Ontario N3T 2H1	Jo Atanas General Manager Health & Human Services Email: JAtanas@brantford.ca
9	City of Brantford 100 Wellington Square P.O. Box 818 Brantford, Ontario N3T 5R7 Tel: (519) 759-4150	Sandy Jackson General Manager Community Programs, Parks & Recreation Email: SJackson@brantford.ca
10	City of Brantford 100 Wellington Square P.O. Box 818 Brantford, Ontario N3T 5R7 Tel: (519) 759-4150	Russel Loukes Director of Engineering Services Email: RLoukes@brantford.ca
11	City of Brantford 100 Wellington Square P.O. Box 818 Brantford, Ontario N3T 5R7 Tel: (519) 759-4150	Wendy Teufel Manager Design and Construction Email: wteufel@brantford.ca

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12	City of Brantford 100 Wellington Square P.O. Box 818 Brantford, Ontario N3T 5R7 Tel: (519) 759-4150	Daniel Kreze Manager of Survey Email: DKreze@brantford.ca
13	City of Brantford 180 Greenwich Street Brantford, Ontario N3T 5R7	Selvi Kongara Director Environmental Services Email: SKongara@brantford.ca
14	City of Brantford 10 Earl Avenue Brantford, Ontario N3T 5R7 Tel: (519) 759-4150	Nello Violin Director of Operational Services Email: nviolin@brantford.ca
15	City of Brantford 100 Wellington Square P.O. Box 818 Brantford, Ontario N3T 5R7 Tel: (519) 759-4150	Geoff Linshoten Director Facilities & Asset Management Email: GLinschoten@brantford
16	City of Brantford Parks and Recreation 1 Sherwood Drive Brantford, Ontario N3T 1N3	Brian Hughes Director of Parks Services Email: BHughes@brantford.ca  Vicki Armitage, Manager Parks Design Email: varmitage@brantford.ca
17	City of Brantford 100 Wellington Square P.O. Box 818 Brantford, Ontario N3T 5R7 Tel: (519) 759-4150	Maria Visocchi Director of Communications & Community Engagement Email: MVisocchi@brantford.ca

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18	City of Brantford 100 Wellington Square P.O. Box 818 Brantford, Ontario N3T 5R7 Tel: (519) 759-4150	Heidi DeVries Director Legal & Real Estate Services Email: HDeVries@brantford.ca
19	City of Brantford 100 Wellington Square P.O. Box 818 Brantford, Ontario N3T 5R7 Tel: (519) 759-4150	Tara Gudgeon Manager of Continuous Improvement Email: TGudgeon@brantford.ca
20	City of Brantford 100 Wellington Square P.O. Box 818 Brantford, Ontario N3T 5R7 Tel: (519) 759-4150	Mike Bradley Director of Fleet and Transit Services Email: mbradley@brantford.ca
21	Brantford Police Services 344 Elgin Street P.O. Box 1116 Brantford, Ontario N3T 5T3 Tel: (519) 756-7050 Or: (519) 756-0113 bps02@police.brantford.on.ca	Geoff Nelson, Chief of Police
22	Brantford Fire Department 60 Clarence Street, P.O. Box 61 Brantford, Ontario N3T 5M3	Shane Caskanette, Fire Chief Email: SCaskanette@brantford.ca
23	Brantford Heritage Committee City of Brantford 100 Wellington Square P.O. Box 818 Brantford, Ontario N3T 5R7 Tel: (519) 759-4150	Victoria Grohn, Policy Planner Email: vgrohn@brantford.ca  Chris Gauthier, Deputy Clerk/Manager Email: cgauthier@brantford.ca

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24 Environmental Policy Advisory Committee Emma Vokes, Legislative Assistant  
City of Brantford Email: evokes@brantford.ca  
100 Wellington Square  
P.O. Box 818  
Brantford, Ontario  
N3T 5R7  
Tel: (519) 759-4150

### E. Municipalities

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1 Brant County Health Unit Dr. Malcolm Lock  
194 Terrace Hill Street Medical Officer of Health  
Brantford, Ontario Ext. 221  
N3R 1G7  
Tel: (519) 753-4937  
Fax: (519) 753-5942

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2 ~~Ambulance Services~~ Charles Longway, Director  
~~303 Henry Street~~ Email: charles.longway@brant.ca  
Brantford, Ontario  
~~N3T 5S7~~  
Tel: ~~(519) 756-4570~~

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3 County of Brant The Clerk  
26 Park Avenue  
PO Box 160  
Burford, Ontario  
N0E 1A0  
Phone: (519)449-2451

### F. Other Agencies

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1 Grand River Conservation Authority Jan Ivey  
400 Clyde Road Subwatershed Planning Coordinator  
P.O. Box 729 Engineering Division.  
Cambridge, Ontario Email: jivey@grandriver.ca  
N1R 5W6  
Tel: 519-621-2763 x.2325  
Fax: 519-621-4844

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2 Grand Erie District School Board Brenda Blancher  
349 Erie Avenue Director of Education  
Brantford, Ontario  
N3T 5V3  
Tel: 519-756-6301  
Fax: 519-756-9181

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3	Brant Haldimand Norfolk Catholic District School Board P.O. Box 217 322 Fairview Drive Brantford, Ontario N3T 5M8 Tel: (519) 756-6369 Fax: (519) 756-9913 Email: info@bhncdsb.ca	Chris N. Roehrig, Director of Education Office Phone: (519) 756-6505 Email: directorsoffice@bhncdsb.ca
4	Brantford Christian School 7 Calvin Street Brantford, Ontario N3S 3E4	Justin DeMoor, Principal
5	Six Nations of the Grand River 1695 Chiefswood Road P.O. Box 5000 Ohsweken, Ontario NOA 1M0 Tel: 519-445-2201	Chief Ava Hill
6	Six Nations Lands and Resources 2498 Chiefswood Road P.O. Box 5000 Ohsweken, Ontario NOA 1M0 Tel: 519-753-0665	Lonny Bomberry Director of Lands and Resources Department
7	Six Nations Wildlife Management Office 1721 Chiefswood Road Iroquois Village Plaza Unit 109 P.O. Box 5000 Oshweken, Ontario NOA 1M0 Tel: 519 445-0330 Fax: 519-753-3449	Mr. Paul General Wildlife Manager
8	Mississaugas of the Credit Department of Consultation & Accommodation 4065 Hwy 6 Hagersville, Ontario NOA 1H0 Tel: 905-768-4260 Fax: 905-768-9751	Ms. Fawn Sault Consultation Manager Email: fawn.sault@newcreditfirstnation.com

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9	Mohawk Lake Working Group 122 Charing Cross St., Suite #1 Brantford, Ontario N3R 2J1	Joy O'Donnell BA, FP Grand Financial Planning Email: joy@grandfinancial.ca
10	East Ward Neighbourhood Association	Maegan Rutten City Staff: Neighbourhood Programming Coordinator
11	Grand River Environmental Clean Up	Tracey Bucci Group Contact person
12	Canadian Military Heritage Museum	Bob Ion
13	Eagle Place Neighbourhood Association	Maegan Rutten City Staff: Neighbourhood Programming Coordinator

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### **G. Utilities**

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1.	Bell Canada P.O. Box 938 86 Market Street Brantford, Ontario N3T 5S5	Christine Telfer
2.	Rogers Cable 85 Grand Crest Place P.O. Box 488 Kitchener, Ontario N2G 4A8 Tel: (519) 894-8138 Fax: (519) 893-6463	Richard Bolliger Municipal & Utility Relations
3.	Union Gas P.O. Box 340 603 Kumpf Drive Waterloo, Ontario N2J 4A4	John Stauffer
4.	Brantford Hydro Inc. 44 King Street, Suite 207 Brantford, ON N3T 3C7 Tel: (226) 493-1043	James Nagle, Chief Operating Officer
5.	Brantford Power Inc. 84 Market Street Brantford, Ontario N3T 5N8 Tel: (519) 751-3522	Paul Kwasnik, Chief Executive Officer

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6	CN Rail 1 Administration Road Concord, Ontario L4K 1B9 Tel: (905) 760-5007 (number kept ringing and no answering machine) Fax: (905) 760-5010	Manager, Community Planning & Real Estate
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## **Community Needs and Visioning**



## **MOHAWK LAKE WORKING GROUP**

### **Agenda**

**Friday, April 5, 2019 – 11:00 a.m.**

**Charlie Ward Room located at City Hall, 100 Wellington Square**

- 1.0 Opening Remarks and Review of Agenda –
  - 2.0 Minutes of the Previous Meeting – March 28, 2018
  - 3.0 Business Arising from Previous Minutes
  - 4.0 City of Brantford Technical Report – Nahed Ghbn
    - 4.1 Mohawk Lake Project Update
  - 5.0 Mohawk Lake District Plan – Tara Tran
    - 5.1 Project Update
  - 6.0 Governance & Administration – Review & Update.
  - 7.0 Strategic Planning Committee Report –
    - 7.1 Marketing Plan – On Going Community Outreach Projects
      - 7.1.1 Children’s Water Festival – New Display Required
      - 7.1.2 Yellow Fish Road
      - 7.1.3 Service Clubs and Organizations Presentations
      - 7.1.4 Public Meetings
  - 8.0 Mohawk Lake Working Group’s Mandate for 2019 – Next Steps
  - 9.0 Date of Next Meeting –
- Adjournment

**DATE:** June 1, 2015

**REPORT NO. CD2015-118**

**TO:** Mayor Chris Friel & Members of City Council

**FROM:** Gregory Dworak, General Manager  
Community Services

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**1.0 TYPE OF REPORT**

**CONSENT ITEM [ ]**  
**ITEM FOR CONSIDERATION [ X ]**

**2.0 TOPIC:**

**Mohawk Lake Visioning Workshop Results [Financial Impact – None]  
(CD2015-118)**

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**3.0 RECOMMENDATION**

- A. THAT the results of the Mohawk Lake Visioning Workshops that were held on May 5<sup>th</sup>, May 7<sup>th</sup>, and May 14<sup>th</sup>, 2015, and as outlined in Staff Report CD2015-118, BE RECEIVED; and
- B. THAT Staff BE AUTHORIZED to seek out and secure financial assistance for the Mohawk Lake Project from other sources including the Federal and Provincial Governments.

**4.0 PURPOSE**

The purpose of this report is to provide Council with a summary of the ideas that were heard by the Mohawk Lake Working Group at the three workshops held on May 5<sup>th</sup>, 7<sup>th</sup> and 14<sup>th</sup>, 2015. This report will outline the workshop program, the ideas and comments that were shared from the 64 people who attended the workshops, the 38 people who responded to the online survey, and the 148 people who “Like” the Mohawk Lake Project Facebook page. This report will also discuss the next steps for how the workshop results will be used to develop a vision statement and proposed work plans to address the clean-up of Mohawk Lake, Canal and the associated waterways.

In accordance with the City's Procedural Bylaw, this report is considered urgent and is coming directly to City Council for consideration to provide staff immediate authority to seek and secure funding for the Mohawk Lake Project.

## 5.0 BACKGROUND

In December 2014, the Mohawk Lake Working Group was formed in response to community interest in re-examining the revitalization of Mohawk Lake, Mohawk Canal and its associated waterways. The Mohawk Lake Working Group is comprised of the ex-officio members MP Phil McColman, MPP Dave Levac, City of Brantford Mayor Friel, County of Brant Mayor Eddy and Six Nations of the Grand River Chief Hill. Councillors from City of Brantford and Six Nations sit on the Working Group, as well as staff members from the City of Brantford, Six Nations, and the Grand River Conservation Authority. Citizen-members representing various agencies and groups are also members of the Working Group.

The Mission Statement of the Mohawk Lake Working Group is:

*Advocate for the environmental and historical restoration of Mohawk Lake in a collaborative manner with the City of Brantford and the community. We will explore all options to enhance, restore, create and sustain recreational opportunities within a valued ecosystem.*

Through its Strategic Planning Committee, the Mohawk Lake Working Group decided to undertake a public consultation process to gain public input to assist in the development of a vision for the Mohawk Lake Project. This vision would provide the basis for the next steps including any necessary background studies and implementation plans for the revitalization of Mohawk Lake.

## 6.0 CORPORATE POLICY CONTEXT

This initiative would meet the goals of the City's Community Strategic Plan. In particular, the following Goals are applicable:

Goal 2: High Quality of Life and Caring for All Citizens and the long-term desired outcomes that:

- Brantford citizens and visitors will enjoy a full range of well-supported and maintained arts, heritage, culture, sports and recreational facilities and programs.
- Brantford will be recognized as a safe and healthy community – one that promotes and enables the well-being of its citizens, and supports access of all citizens to a full range of health and community services.

Goal 3: Managed Growth and Environmental Leadership and the long-term desired outcomes that:

- Brantford's built heritage will be protected and enhanced.
- Brantford will be recognized for its environmental stewardship and protection of its natural assets.



## 7.0 INPUT FROM OTHER SOURCES

Input was received from 64 participants at the workshops and 38 respondents to the online survey and the 148 people who “Like” the Mohawk Lake Project Facebook page.

## 8.0 ANALYSIS

### 8.1 Visioning Workshop Program

The purpose of the workshops was to hear from the community about two aspects related to the revitalization of Mohawk Lake:

- What does the community value about Mohawk Lake from the past and present and what existing features are important; and
- What is the vision for Mohawk Lake twenty (20) years from now and what should be maintained, improved or added to meet that vision?

The workshops were held over three evenings, at three separate locations to help attract and enable a wide range of participants. The turnout at each of the workshops is listed below. A total of 64 people attended the workshops.

May 5, 2015	Mohawk Lake Pavilion	29 people
May 7, 2015	Woodlands Cultural Centre	27 people
May 14, 2015	Six Nations Tourism Centre	8 people

The workshop program was designed by John Hall, a professional planner and volunteer on the Mohawk Lake Working Group, and by Pam Hubbard, a graphic facilitator and professional planner retained to record the workshop results. At each of the workshops, the participants were encouraged to write their ideas and comments down in a workbook, as well as participate in a facilitated roundtable discussion moderated by volunteer facilitators. After each question, the ideas were shared among the entire group and graphically summarized by Ms. Hubbard. The graphic results of each of the workshops are presented in Section 8.2 of this Staff Report.

An online survey was also developed and shared through the Mohawk Lake Project website, [www.cleanthelake.ca](http://www.cleanthelake.ca). The survey was available for approximately 4 weeks. A total of 38 people responded to the survey. The survey is a duplication of some of the survey questions that were originally released in 1994. The Mohawk Lake Working Group chose to re-release the same survey questions to compare today’s results with those collected in 1994. The results of the recent survey are shared in Section 8.2 of this Staff Report.

## 8.2 Workshop Results

### 8.2.1 What Does the Community Value About Mohawk Lake

The workshop participants had many memories and experiences, both past and present, about Mohawk Lake and Mohawk Park, including the following:

- Many recalled the diverse wildlife that occupied the area in the past;
- Many had participated in a variety of recreational activities, such as canoeing, boating, swimming, and fishing in Mohawk Lake, as well as ice skating on the Lake;
- Several people said they attended dances and concerts at Mohawk Park, as well as picnicked and walked along the trails in the Park;
- In the past, a few people recalled getting to and from the area on the trolley that used to run from Mohawk Park to Downtown;
- Many people fondly remembered Mohawk Park and Lake as a family gathering space. For others, it was a “natural playground” for children in the neighbourhood; and
- In addition to personal experiences, many community members also emphasized the valuable history of both Mohawk Lake and Canal and the significant role these features played in Brantford’s industrial and social history. In particular, the Alfred Watts former hydro-electric power generation station was highlighted as a valuable asset to Brantford’s heritage.

These memories and experiences demonstrated that the workshop participants valued the park as a green space in the community where families and people of all ages could meet and enjoy the natural environment and recreational activities.

These ideas are represented in the following Figures 1, 2 and 3, completed by Pam Hubbard at the workshops:

Figure 1: Sharing Knowledge and Values (May 5, 2015)

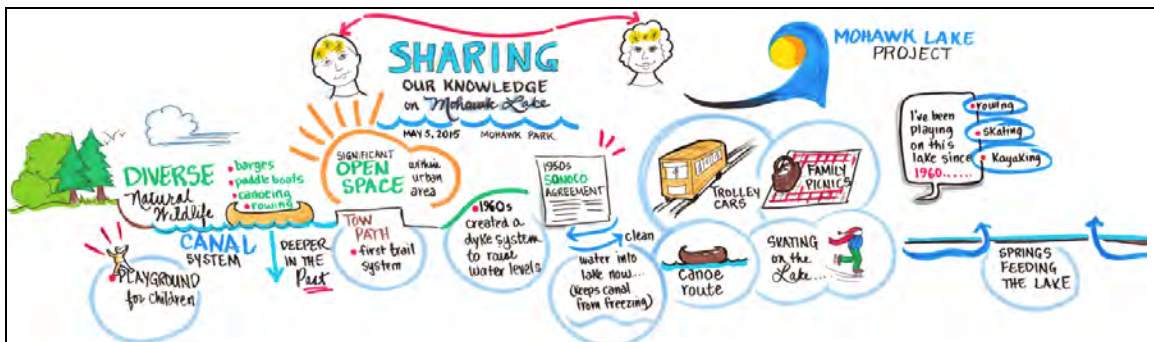


Figure 2: Sharing Knowledge and Values (May 7, 2015)

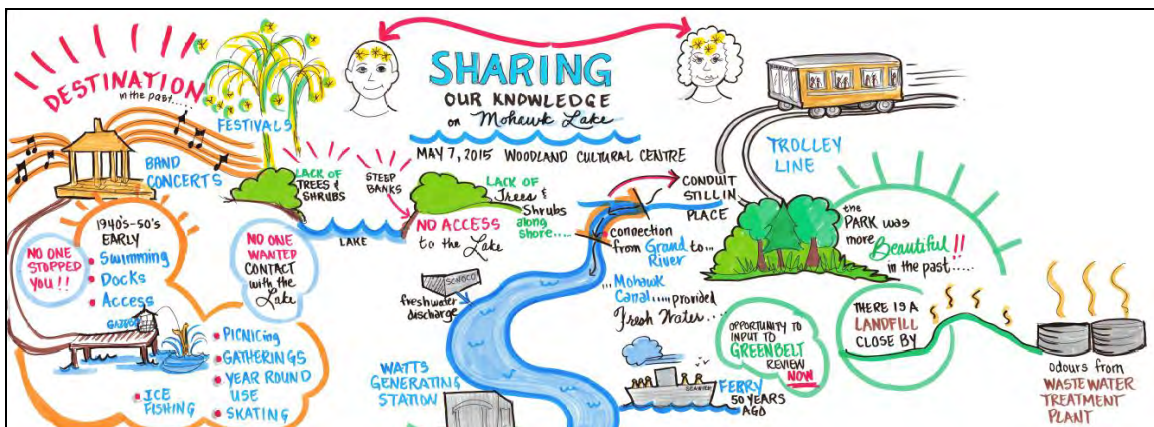


Figure 3: Sharing Knowledge and Values (May 14, 2015)



### **8.2.2 What are the Hopes and Fears of the Community**

During the workshop community members were asked to release their fears about the project so that they could instead focus on opportunities and visioning. In addition to this, the participants were also encouraged to write down their hopes. The “Our Hopes and Our Fears” charts are available in **Appendix “A”** of this Staff Report.

Some of the common fears that people had were:

- The impact of a possible BSAR route through the area;
- Over-developing the Lake and Park with recreational and tourism amenities that will impact the area’s natural setting;
- The expenses to be spent on the project’s design, especially if the plan is not implemented; and
- Making Mohawk Lake and Canal worse off by disturbing the contaminants that are held in the sediments.

Some of the common hopes that people had were:

- Reconciliation and collaboration with the Six Nations community through this project;
- Using the park for education, recreation, festivals and events;
- An all-season lake and park; and
- A vibrant green space for all ages and people in Brantford.

### **8.2.3 What is the Vision for Mohawk Lake 20 Years from Now**

The primary objective of the workshops was to hear feedback and ideas to help inform a vision for Mohawk Lake, the Canal and the associated waterways. The participants of the workshop were asked to share their vision of Mohawk Lake twenty (20) years from now. A wide range of ideas were heard at the workshops, and which are summarized graphically in Figures 4, 5 and 6 of this Staff Report. Many participants expressed interest in enhancing and broadening recreational activities on the Lake, such as boating (with an emphasis on non-motorized boats), fishing, swimming and adding beaches. Other suggestions to enhance the area were implementing access to the water, improving the shoreline with native vegetation and more trees, particularly around the Canal section, and improving water quality.

At the workshops, the following over-arching statements were heard about the vision for Mohawk Lake and Canal:

- A kind of “Central Park” in Brantford for families and people of all ages to gather and meet;
- A major tourist attraction that is a place for festivals and events, a place for recreation, a place for romance, a place for children, “the place where everyone meets”;
- Change the reputation of the Lake to be known as a safe place and environmentally sound;
- Educational opportunities and research partnerships for school groups and post-secondary institutions and others about the natural environment and about the cultural history of the Canal, Six Nations, and Brantford’s industrial heritage;
- Restore or establish connections with the Grand River and with existing parks and trails; “re-connect people to the Lake”;
- Restore the natural environment, fish habitat, wildlife, and flora; and
- Establish Mohawk Lake as a place for residents of Brantford to have a “stay-cation” and a place which attracts people to visit and discover Brantford.

The Mohawk Lake Working Group also heard many broader comments that expressed the idea that improvement to Mohawk Lake and Canal and its waterways could be a “catalyst for rejuvenation” for the entire city that would be a major attraction to both Brantford residents and visitors. Furthermore, the Mohawk Lake, Canal, and Park could help connect various communities, such as the Eagle Place and Echo Place neighbourhoods as well as the Six Nations community.

The following Figures 4, 5 and 6 are a graphic summary of the ideas heard for the participants’ vision for Mohawk Lake.

Figure 4: Vision for Mohawk Lake (May 5, 2015)

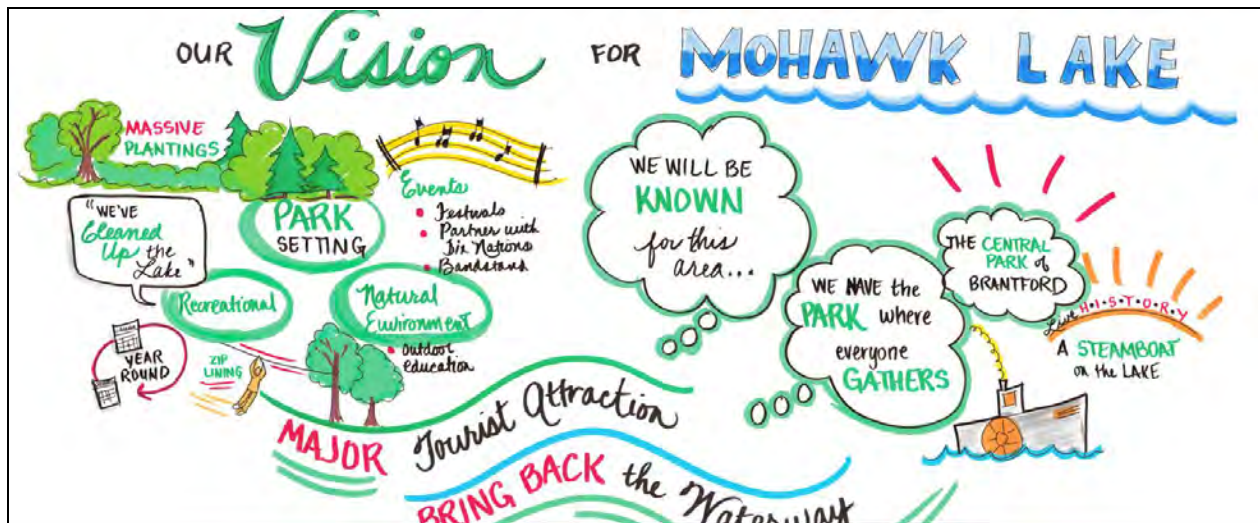


Figure 5: Vision for Mohawk Lake (May 7, 2015)

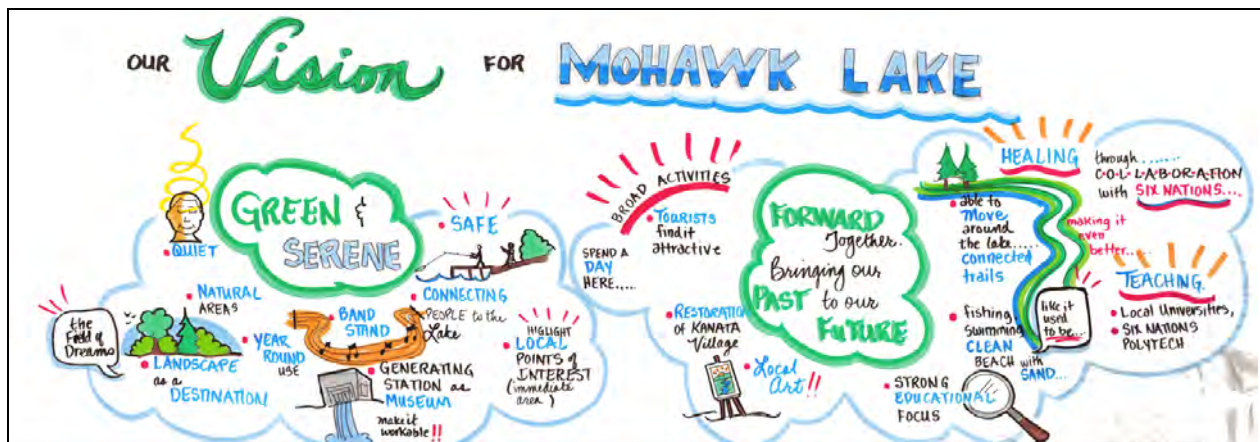
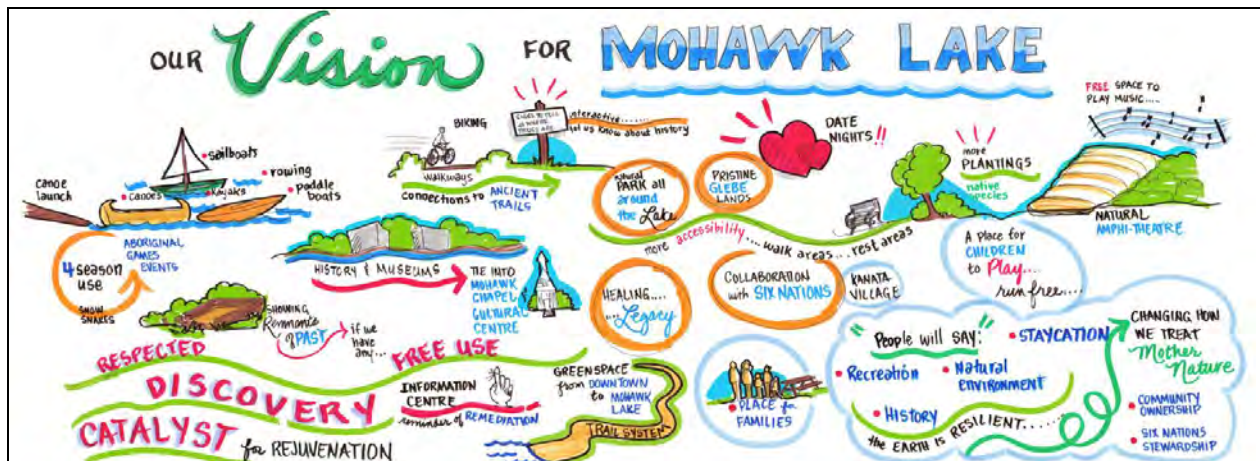


Figure 6: Vision for Mohawk Lake (May 14, 2015)



### 8.3 Survey Results

An online survey was released as part of the public consultation program. The survey questions were a repeat of some of the questions used on a survey issued in 1994 as part of an earlier initiative to revitalize Mohawk Lake and Canal. The 1994 survey had 81 respondents. In 2015, 38 respondents answered the online survey. The following is a highlight of the results of both the 1994 and the 2015 survey to compare how the results have changed or stayed the same. A detailed summary of the survey results is available in **Appendix “B”**.

Question	1994 Results	2015 Results
Would you like Mohawk Lake water quality improved?	<b>100% Yes</b>	<b>95% Yes 5% No</b>
What level of water quality improvement would you like? High Quality (for sport fishing) Good Quality (for canoeing/sailing) Acceptable (for viewing)	<b>27% High Quality</b>	<b>57% High</b>
	<b>67% Good Quality</b>	<b>37% Good</b>
	<b>6% Acceptable</b>	<b>3% Acceptable</b>
	<b>-</b>	<b>3% N/A</b>
Would you like Mohawk Lake and Canal developed for recreations purposes?	<b>100% Yes</b>	<b>89% Yes 11% No</b>
What recreation activities would you like to participate in at Mohawk Lake and Canal? Top 3 choices were:	<ul style="list-style-type: none"> <li>• <b>Boating</b> (including canoeing, paddle boats, sailing)</li> <li>• <b>Fishing</b></li> <li>• <b>Swimming</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Canoeing</b></li> <li>• <b>Walking/Hiking</b></li> <li>• <b>Fishing</b></li> </ul>
What facilities would enhance the Lake? Top 3 choices were:	<ul style="list-style-type: none"> <li>• <b>Beach</b></li> <li>• <b>Wildlife Area</b></li> <li>• <b>Skating Facility</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Trails</b></li> <li>• <b>Look-outs</b></li> <li>• <b>Docks</b></li> </ul>

The 2015 survey asked the following additional question: What are the barriers or constraints, if any, that prevent community members from visiting Mohawk Lake more often? Some of the common responses were:

- Senior citizens felt that the park was meant only for young children and there are no amenities or activities for seniors;
- There is not enough to do at the park or activities to attract people to the park;
- Difficult to access the water and no shoreline; and
- The perception that Mohawk Park is unsafe.

#### **8.4 Next Steps**

The Mohawk Lake Working Group will continue to summarize and review the results of the workshop and the surveys with the intention of developing a vision statement that reflects the feedback received from the community. The Working Group will also use this information to help guide the development of some preliminary work plans to achieve the vision statement.

A Staff Report in the Fall of 2015 will share the proposed vision statement of the Mohawk Lake Working Group and the preliminary work plans to implement the proposed vision.

#### **9.0 FINANCIAL IMPLICATIONS**

There are presently no further financial implications to proceeding with the development of a vision statement for Mohawk Lake. The Working Group and City staff continue to seek funding opportunities from other sources to assist in financing this project.

#### **10.0 CONCLUSION**

This Report summarizes the results of the Mohawk Lake visioning workshops held in May 2015. The Mohawk Lake Working Group heard many ideas from the community about how they value Mohawk Lake and what they envision for the future of Mohawk Lake in 20 years. The Mohawk Lake Working Group will develop a vision statement out of the workshop results and share this, as well as preliminary work plans to Council in the Fall of 2015.



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Tara Tran, MCIP, RPP  
Policy Planner  
Community Services

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Nicole Wilmot, MCIP, RPP  
Manager of Policy Planning  
Community Services

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Paul Moore, MCIP, RPP  
Director of Planning  
Community Services

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Gregory Dworak, MCIP, RPP  
General Manager,  
Community Services

In adopting this report, is a by-law or agreement required? If so, it should be referenced in the recommendation section.

By-law required	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no
Agreement(s) or other documents to be signed by Mayor and/or City Clerk	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no
Is the necessary by-law or agreement being sent concurrently to Council?	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no

cc: Geoff Linschoten, Director of Facilities and Asset Management

APPENDIX "A"  
Our Hopes and Our Fears Charts

May 5, 2015 Our Hopes and Fears

**Mohawk Lake**

**OUR HOPES**

- That the lake will lose its public reputation as an unsafe waterspace for recreation, and be used again.
- Designate Mohawk lake & the Canal system, & all as "Cultural Heritage Landscape" under the Ontario Heritage Act.
- Eco destination for tourists & bird watchers
- Storm pond management new technology maintain
- Stop the storm water
- Conduit from the Grand River
- Substantial clean(er) clean water being produced by some companies into canal
- → a natural "swimming hole"
- → Vital + vibrant part of Brantford Socially + environmentally + even economically (via tourism)

**OUR FEARS**

- take over
- Remove green lake / park and build "space, lake, etc. condo."
- BSAR.
- Anything that disconnects Eco Price from Eagle Place, it all connects via Mohawk lake / Canal system.
- That more dredging will set back eco-system development in the lake bed. (i.e. existing life is in the top few inches of soil)
- → Costs \$ to enter park
- funding to do all this

**Mohawk Lake**

**OUR HOPES**


- Community Inclusion
  - - accessibility right down to lake front
- ↑ Recreational Use = ↑ tourism to Brantford
  - - water sports, tours - canoe/kayak
  - - keeping of vital green spaces
- All "AGE-FRIENDLY ENVIRONMENT"
  - - GREEN, SPACES + BUILT (walk) FACILITIES
- TEACHING RENATURAL HABITAT

**OUR FEARS**

- spending \$ on fixing up then
- losing sight of plan + no plan for future or maintenance
- BSAR + Brawnfields - how will they effect Mohawk Lake
- **NO BSAR!!!**


May 7, 2015 Our Hopes and Fears

*Mohawk Lake*



**OUR HOPES**


FURTHER RESEARCH  
RECOMMENDATIONS  
FOCUS



**OUR FEARS**

- stirring up toxic chemicals, ie. herbicides, agent orange (RR)
- in the past used as an open sewer for industrial, chemical waste
- even though you may "filter" the lake water, these chemicals are still in the lake sediment

*Mohawk Lake*




**OUR HOPES**

RECREATION & EDUCATION  
FAIRS & EVENTS

high quality fishing Teams and Derbs

- OUT DOOR SWIMMING SAND BOTTOM LAKE
- the Southern Access Road finds a different Route. AND NOT CLOSE to MOHAWK PARK "NOISE"
- RAIL Route to GRENICH INDUSTRIAL AREA WILL BE ELIMINATED! IF CUTS THE AREA IN 2 AND DISRUPTS DOWN DOWN BRANTFORD
- WINTER-MOTO CROSS ON THE LAKE
  - LAKE HOCKEY TOURNAMENT



**OUR FEARS**

**NO BSAR** near MOHAWK PARK & LAKE

- DISTURBING SILT COULD EXPOSE MORE CONTAMINANTS TO CAUSE MORE DAMAGE
- Will become an attractive that Mohawk Lake (a Park) will evolve into a "touristic" attraction or noisy high-activity centre, rather than a place of peace, serenity, + beauty with relaxing sounds + sights + experiences for all to enjoy.
- TOO MUCH COMMERCIAL DEVELOPMENT
- CLOSE PROXIMITY to WASTE WATER TREATMENT PLANT
- OUT DOOR MUSIC VENUES "SMELL" the size LIKE "WOODSTOCK"

May 14, 2015 Our Hopes and Fears

**Mohawk Lake**

**OUR HOPES**

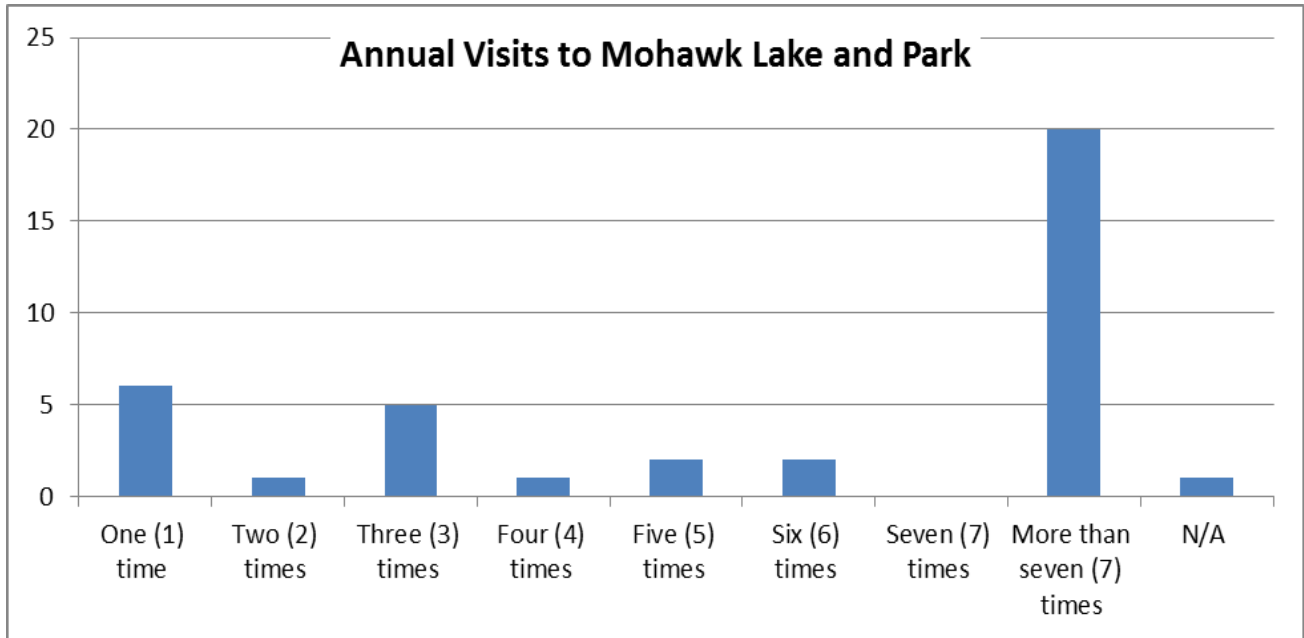
- Free Access for families
- Safe from traffic
- CLEAN
- NEW BANDSHELL ON SOUTH SHORE
- REMOVE GREENWICH STREET
- ADD REPAIRIAN ZONE & WALK/BIKWAY -

**OUR FEARS**

- Gasoline in water, from motor boats
- No WATERFRONT HOUSING OR DEVELOPMENT
- Not getting the funding to complete the project.
- It taking too long... causing community to lose interest.
- Don't over develop Mohawk Lake
- TO MUCH POLITICAL INVOLVEMENT

**APPENDIX "B"**  
**2015 Survey Results**

**2015 Survey 1**



APPENDIX "B"  
2015 Survey Results

2015 Survey 2

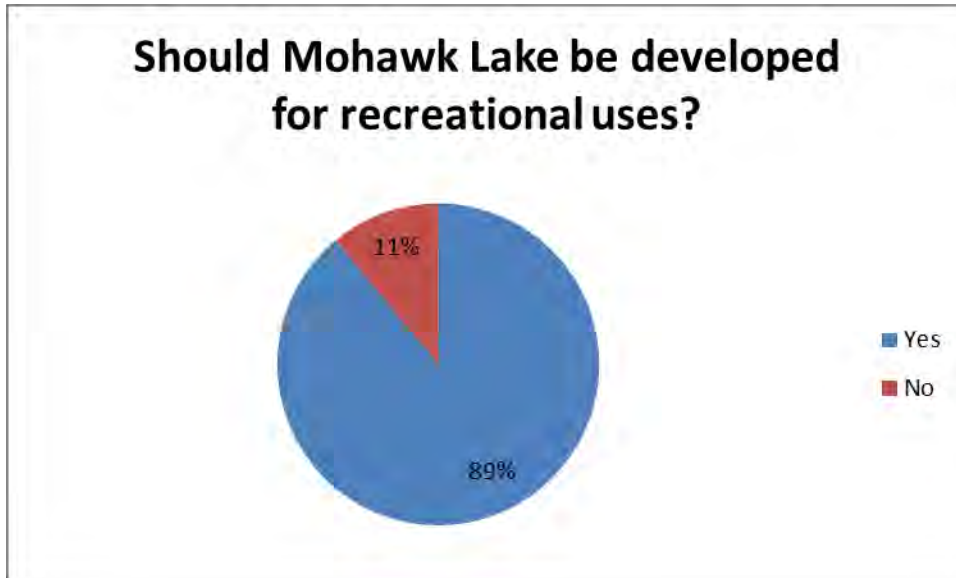


2015 Survey 3

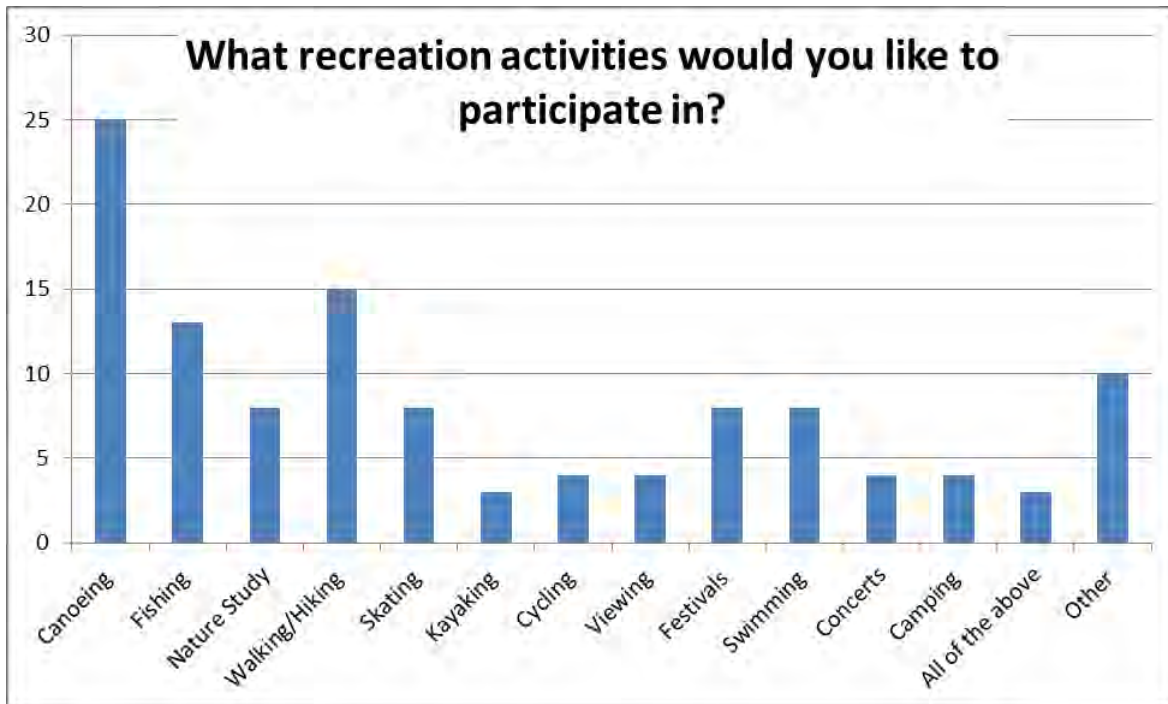


APPENDIX "B"  
2015 Survey Results

2015 Survey 4

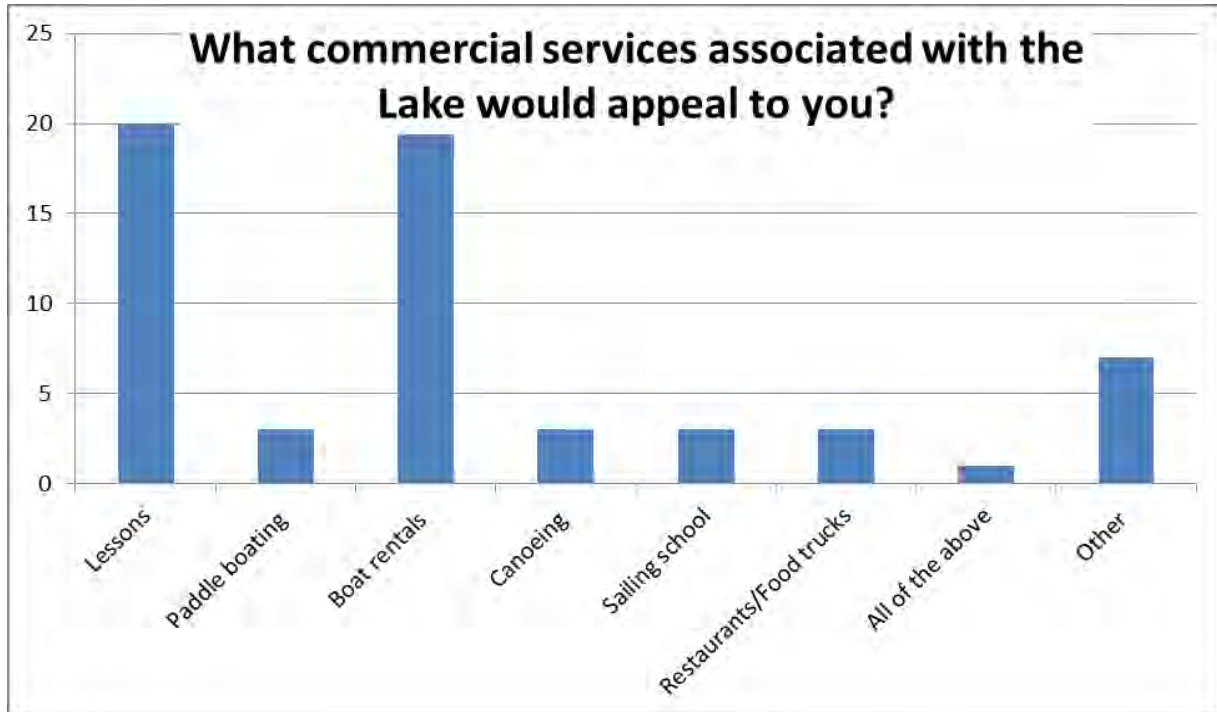


2015 Survey 5

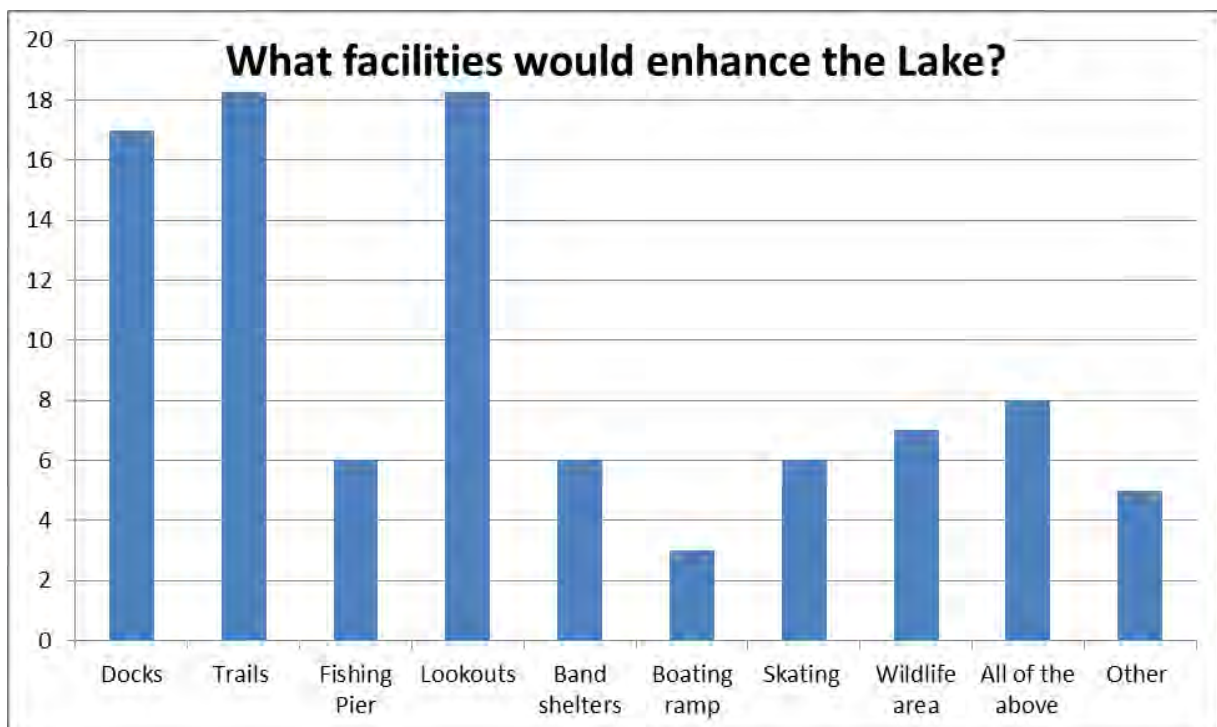


APPENDIX "B"  
2015 Survey Results

2015 Survey 6



2015 Survey 7







Alternative formats and communication supports available upon request. Please contact accessibility@brantford.ca or 519-759-4150 for assistance.

**Date** June 4, 2019 **Report No.** 2019-265  
**To** Chair and Members  
Committee of the Whole – Community Development  
**From** Paul Moore  
General Manager, Community Development

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### 1.0 Type of Report

Consent Item   
Item For Consideration

### 2.0 Topic **Mohawk Lake District Plan – Draft Preferred Plan** **[Financial Impact: None]**

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### 3.0 Recommendation

- A. THAT Staff Report 2019-265 regarding the Mohawk Lake District Plan – Draft Preferred Plan BE RECEIVED; and
- B. THAT the draft preferred Mohawk Lake District Plan, provided in **Appendix F** to Report 2019-265, BE ENDORSED by Council; and
- C. THAT Staff BE DIRECTED to continue with the technical studies to evaluate and support the endorsed Preferred Plan.

### 4.0 Purpose and Overview

The purpose of this Report is to share the results of the Mohawk Lake District Plan community engagement program and to present the draft preferred plan for Council’s consideration and endorsement. This is a key decision point in the ongoing Mohawk Lake District Plan work program that will result in a plan for revitalization and redevelopment of the study area, as provided in **Appendix A** of this Report. The next stage in the Mohawk Lake District Plan work program

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will be the completion of technical studies to evaluate the feasibility of the draft preferred plan. Later stages will result in recommended land use policies, zoning regulations, and a strategy for the implementation of the Plan.

## 5.0 Background

The study area for the Mohawk Lake District, provided in **Appendix A** of this Report, includes lands directly adjacent to Mohawk Canal from Shallow Creek Park to Alfred Watts hydro generating station ruins, and includes:

- The Greenwich Mohawk former brownfield site;
- Mohawk Park;
- Mohawk Lake;
- Active industries;
- The Time Keepers Building; and
- A privately owned rail spur line.

It is noted that two large parcels of land adjacent to the study area are part of the Six Nations of the Grand River Territory. The Mohawk Lake District Plan will not have jurisdiction over any lands governed by Six Nations of the Grand River.

The Mohawk Lake District was formed by Council through the 2014-2018 City of Brantford Community Strategic Plan as a result of concurrent initiatives around Mohawk Lake, the Canal, and the Greenwich Mohawk former brownfield site.

It is important to note that past Council direction has also been received for the following related projects:

- Implement a municipal-led \$42 million remediation program that would achieve the applicable provincial standard, and which would maximize the future redevelopment potential of the 50-acre Greenwich Mohawk brownfield site (Reports CD2014-095 and CD2017-023);
- Implement a cultural heritage landscape designation for Mohawk Canal and the Alfred Watts hydro generating station ruins (Report CD2016-129);
- Initiate a lease agreement with the Canadian Industrial Heritage Centre for the use of the Cockshutt Timekeepers Building as part of an overall plan (Report CD2013-035);
- Implement the Mohawk Lake and Canal Rehabilitation project funded in part by Federal funding (Report PW2017-024); and

- Investigate route options for the potential extension of the Veterans Memorial Parkway, which may include alignments that are adjacent to or could pass through the Mohawk Lake District study area.

These initiatives prompted Council to direct the revitalization of this area to be considered together within an overall District Plan to coordinate revitalization efforts throughout. As a result, in 2017, the Mohawk Lake District Plan work program was initiated. To assist in developing a comprehensive District Plan, Planning Staff retained the consulting firm WSP Group to provide technical expertise, to prepare the necessary reports and drawings, and to assist with the community engagement program.

It should be noted that within the District, there are active industrial operations. Additionally, there is an active railway spur line owned and operated by one of the industrial companies within the District. While it is Planning Staff's understanding that the spur line is used approximately once a week for one or two slow moving rail cars, this spur line will be accommodated within the overall final District Plan, along with the other industrial operations.

## 6.0 Corporate Policy Context

### 6.1 Shaping our Future: Brantford's Community Strategic plan Context (2014-2018)

One of the actions identified within the Community Strategic Plan, Shaping Our Future 2014-2018, is: *"Explore the establishment of a Mohawk Lake District that includes a wide range of options for revitalization and redevelopment of the Greenwich-Mohawk Site as well as areas surrounding Mohawk Lake through community consultation. Complete existing remediation projects."*

Another applicable section is "Goal 3: Managed Growth and Environmental Leadership". It includes the long-term desired outcome that *"Brantford will be known as a city that manages growth wisely, makes optimum use of its infrastructure and is a leader in infill and brownfield redevelopment."*

## 7.0 Input From Other Sources

The project technical team includes staff from several City Departments who have reviewed project materials at key milestones throughout the work program. These Departments include: Parks Services, Engineering Services, Facilities and Asset Management, Fleet and Transit Services, Legal and Real Estate Services, and Economic Development and Tourism Services.

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In 2017 Council also created the Mohawk Lake District Working Group, comprised of the Mayor and a councillor representative from each ward. The mandate of the Working Group is to address the requests of community groups who are interested in re-locating to the Mohawk Lake District (i.e. to the Greenwich Mohawk brownfield site). The Working Group has held seven (7) meetings to receive project updates, review the latest draft concepts, and hear input from community groups. To meet its mandate, the Working Group implemented an expression of interest process to identify the land uses and space requirements (building square footage and/or land area) requested by those who have an interest in re-locating to the Mohawk Lake District. A summary of the expressions of interest submissions provided by nine (9) community groups is attached as **Appendix B**. In addition, the Working Group has added the potential for a mid-sized performance space, as well as new headquarters for Brantford Police Services, to the list of uses to be considered for potential locations within the Mohawk Lake District. On May 1, 2019, Six Nations Polytechnic sent a letter of intent to the Mayor and Council indicating that they will be submitting an expression of interest with regard to re-locating to the Mohawk Lake District area (included in **Appendix B**). When available, this submission will be provided to the Mohawk Lake District Working Group to be added to the list for consideration.

The information gathered through the expression of interest process helped to identify the general land uses and space requirements that the community groups are requesting. In response, the draft preferred Mohawk Lake District Plan takes into consideration the requested land uses. The Mohawk Lake District Plan will not include any specific recommendations regarding the nine community group's requests for land or space within the District. Once the Mohawk Lake District Plan is completed, Council may wish to consider a process to determine which requests, if any, may be accommodated based on the outcome of the technical studies to be completed as part of the next stage of the work program.

The Mohawk Lake District Working Group met on May 3, 2019. At the meeting, the delegation from the Lansdowne Children Centre reported that efforts by the agency to seek funding from the province and other sources are contingent on securing a decision on a location. General discussion around this topic confirmed that other community groups have the same concern about their fundraising efforts. It was noted at the meeting, that some community groups are requesting land (either through donation, lease or purchase) to construct new purpose-built facilities and others are requesting space for lease or rent within

other multi-use buildings. Table 1 summarizes the approximate land area or building square footage requested by the various groups (where known).

**Table 1 Summary of Land or Space Requests by Community Groups**

<b>Community Group</b>	<b>Requested Square Footage</b>	<b>Requesting Land for a purpose-built facility</b>
De dwa da dehs nye>s Aboriginal Health Centre	45,720	Yes, 5 acres
Lansdowne Children Centre	102,000	Yes, 9 acres
Children Safety Village	n/a	Yes, 3 acres
Participation Support Services	7,000	Yes, to be determined
Brant Theatre Workshops	3,000	No
Brantford Symphony Orchestra	14,000	No
Brant Historical Society	15,000	No
Personal Computer Museum	5,000	No
Canadian Industrial Heritage Centre	N/a	Yes, 2 acres
Mid-Size Performance Space	To be determined	Yes, to be determined
Brantford Police Services Headquarters	To be determined	Yes, 10 acres
Six Nations Polytechnic	To be determined	Yes, to be determined
<b>TOTAL SQUARE FOOTAGE</b>	<b>191,720</b>	<b>29 acres</b>

As summarized in Table 1 of this Report, if each group's proposal was considered individually, more than 29 acres would be required to accommodate approximately 191,720 square feet of known space requirements requested by the community groups, representing 58% of the total available area of the 50 acre Greenwich Mohawk site. Section 8.2.5 of this Report outlines further

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analysis on how the land or space requests of the community groups may be considered within the draft preferred Mohawk Lake District Plan.

Community engagement is also a significant component of this project. Several meetings and outreach initiatives were organized that successfully gathered feedback from citizens, property owners, and respective staff members of Six Nations of the Grand River and Mississaugas of the Credit First Nation. These meetings and outreach initiatives took place at two strategic stages of the project: Stage 1: Vision and Principles; and Stage 2: Preferred Land Uses. The following sections of this Report provide additional details regarding the objectives of these project stages and the community engagement that took place.

## **7.1 Stage 1: Vision and Principles**

The objective of the first stage of this project was to hear from the community about its overall Vision for the revitalization of this area. The Project Team wanted to know what existing features in the area were valued, what other goals did the community have for the area, and ultimately what over-arching principles might be used to guide the redevelopment of the District.

The Project Team organized a public information meeting on March 29, 2018 at S.C. Johnson - T.B. Costain Community Centre, which was attended by approximately 80 people who participated in round table discussions. Over the subsequent months, additional feedback was gathered through the Project Team's participation at a family event on April 21, 2018 hosted by the East Ward Neighbourhood Association held at Major Ballachey School, at an open house BBQ on May 18, 2018 hosted by Six Nations of the Grand River held at the Six Nations Tourism Centre, and at two BBQ events on June 15 and August 3, 2018 hosted by Mississaugas of the Credit First Nation held at the Department of Consultation and Accommodation office in Hagersville. At these additional events, the Project Team engaged with approximately 50 people at each event. These informal gatherings attracted families and young people, representing a demographic that does not typically attend conventional project meetings, thereby broadening the feedback received.

The Project Team reviewed and analyzed the comments we heard from Stage 1: Vision and Principles and summarized the results in a word cloud called "What We Heard" attached as **Appendix C**. Some of the key themes expressed by the public, which informed the Vision Statement are as follows:

- Vibrant;

- 
- Community;
  - Arts and Culture;
  - Water
  - Connectivity
  - Recreation; and
  - Industrial Heritage.

Based on the key themes noted above, the project team developed a draft Vision Statement to guide the development of the District Plan, and this is further discussed in Section 8.1 of this Report.

## **7.2 Stage 2: Preferred Land Uses**

While the Mohawk Lake District Plan will consider all the lands that comprise the District, the 50 acre Greenwich Mohawk former brownfield site has the greatest potential for redevelopment and will act as a catalyst to stimulate the revitalization of the entire area. Accordingly, the objective of the second stage of this project was to focus on refining which various land uses (e.g. residential, commercial, institutional, parks, etc.) are desired by the community, as well as determine in what relative proportion are these land uses to be allocated throughout the redevelopment area. Three draft concepts were prepared for the Greenwich Mohawk lands that offered options for different ways that land uses could be arranged on the site and what type of theme or focus these land uses could address. The three draft concept plans are provided in **Appendix D** to this Report, and a brief description of the options are:

- Option 1: Outdoor Events and Festival Focus
  - A destination for major cultural events and festivals. The primary land uses include a large purpose-built event area with associated parks and open spaces, an institutional area, and some mixed commercial and institutional uses.
- Option 2: Culture and Community Focus
  - A destination for both cultural gatherings and community and commercial services. A balance of land uses that include a multi-purpose open space, several options for mixed commercial and institutional uses with potential upper-storey residential uses, and an institutional area.

- Community Services Focus
  - Primarily a destination for community services, including large institutional areas, and options for mixed commercial and institutional uses with potential upper-storey residential uses. The space could have a campus format with smaller scale public gathering spaces.

A public information meeting was held on November 28, 2018 at S.C. Johnson - T.B. Costain Community Centre, which was attended by approximately 120 people. Participants were invited to vote for their most preferred draft concept, as well as share any feedback on the draft vision statement. A total of 72 people voted on the concepts presented that evening. Additionally, an online survey was also produced and released to the public over three weeks in December and January. An additional 544 participants voted through the online survey and provided comments. As well, the Project Team attended a family-oriented pancake breakfast on December 8, 2018 hosted by the East Ward Neighbourhood Association, at which approximately 80 people attended and an additional 25 votes were received.

The results of the voting exercise are summarized in a memo dated February 15, 2019 from WSP Group and attached as **Appendix E** to this Report. The voting results and comments received are discussed in detail in Section 8.0 of this Report.

### **7.3 Continuous Community Engagement**

Throughout the work program, the Project Team met with individuals and groups to provide on-going project updates. A brief summary of these meetings are described in the following sub-sections. It is also noted that previous community engagement for the former brownfield lands, as well as for Mohawk Lake and Park also took place in 2015, and the results of earlier engagement sessions have also been incorporated and considered as part of this latest project.

#### **7.3.1 Six Nations of the Grand River Staff**

The Project Team met with staff members of the Six Nations Consultation and Accommodation Process (CAP) Team on February 8, 2018 and January 10, 2019. At these meetings, project updates, the latest draft redevelopment concepts, and public engagement results were shared. The Six Nations CAP Team commented that the lands within the District are subject to land claims. Planning Staff were also encouraged to engage with Six Nations Tourism and Economic Development Staff regarding



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potential feedback that may affect or be coordinated with the adjacent cultural sites to the study area. The Project Team has spoken with the Six Nations Director of Tourism and Cultural Initiatives, as well as the Executive Director of the Woodland Cultural Centre on two occasions to share project updates and receive comments.

### **7.3.2 Mississaugas of the Credit First Nation Staff**

The Project Team met with staff members from Mississaugas of the Credit First Nation on March 27, 2018 and January 16, 2019. At these meetings, a project update, the latest draft concept plans, and public engagement results were shared. Mississauga First Nation Staff asked questions and shared historical information.

### **7.3.3 Presentations to Community Groups**

The Project Team also presented information to various community organizations to promote the project and to provide further opportunities for community feedback. Planning Staff presented this project at the 2019 Heritage Day Workshop, at meetings of the Kiwanis Club and the Brantford Sunrise Rotary Club, at the Eagle Place Neighbourhood walk during Jane's Walk weekend, and to the citizen-led Mohawk Lake Steering Committee.

## **8.0 Analysis**

The purpose of the Mohawk Lake District Plan is to develop a comprehensive land use structure and policy framework to guide the future redevelopment and revitalization of the Mohawk Lake District area. This Plan will help to harmonize several related initiatives to maximize these investments and opportunities. The District Plan will review the existing land uses and consider appropriate future land uses and include official plan policies, urban design guidelines and corresponding zoning regulations. A transportation network plan and servicing report will address demand and future growth of the study area. The District Plan will also provide options and recommendations regarding the retention or sale of the City-owned lands to support the recommendations of the Plan.

The Mohawk Lake District Plan work program includes the following stages:

- 
- Visioning
  - Draft District Plan
  - Technical Feasibility Analysis
  - Supporting Reports for Implementation
  - Finalization of the Mohawk Lake District Plan and Approval

Presently, the Project Team has completed the Visioning stage and is in the process of developing the Draft District Plan. Further details of the completed stages of the work program are provided in Sections 8.1 and 8.2 of this Report. Section 8.3 outlines next steps to complete subsequent stages of the work program.

## **8.1 Vision Statement and Guiding Principles**

The Vision Statement represents what the Mohawk Lake District Plan will ideally achieve. The Vision Statement was developed from extensive community input at the first public workshop and affirmed at subsequent community engagement meetings and through the online survey. This Vision Statement also reinforces what has been heard in previous public consultations in 2015 that took place at the onset of the remediation program for the Greenwich Mohawk site. Specific comments received throughout the engagement process were considered and incorporated accordingly. The Project Team proposes to move forward with the following Vision Statement:

*“Mohawk Lake District will be...*

*A welcoming place for residents, families and visitors of all ages to explore, shop, eat, learn, and gather. Parks and trails along Mohawk Lake and Canal and throughout the District will provide a beautiful and healthy way to connect with nature. Mohawk Lake District will be where we honour the past, but also a place to be inspired for the future. As a popular destination where history, culture, recreation, and tourism meet, Mohawk Lake District will be a place of pride in the community.”*

In addition to the Vision Statement, the following guiding principles identify the overall values that are desired and intended to be achieved by the Plan:

- Vibrant Neighbourhood
- Centre for Tourism
- City’s Recreational Centre

- 
- Conserve and Celebrate Heritage
  - Holistic and Connected
  - Sustainable Community

The guiding principles to achieve the Vision are provided in **Appendix C**. As noted in Section 7.1 of this Report, community feedback helped to inform these guiding principles which were then used by the Project Team to shape the draft preferred Mohawk Lake District Plan.

## **8.2 Mohawk Lake District Plan: Draft Preferred Plan**

The Project Team has prepared a draft preferred Mohawk Lake District Plan, provided in **Appendix F**, which is an illustration of what was heard based on extensive community feedback. The draft preferred District Plan, and the proposed land uses and locations are conceptual, and are intended to demonstrate how the District may develop. To ensure that the vision of the community is realistic, the draft preferred District Plan will require further evaluation for technical feasibility. While a preliminary technical review by City Staff has taken place, a detailed analysis by the project consultants is required. This will involve the completion of several technical studies to identify any matters that may require changes to the draft preferred Plan. The studies will address the feasibility of implementing the Plan by evaluating environmental impact, the need for transportation or infrastructure upgrades or alterations, as well as an assessment of compatibility with surrounding land uses, and the economic market conditions to support the preferred Plan. As noted, the results of the technical reports may result in revisions to the final draft preferred District Plan.

At this stage, the Project Team is seeking endorsement of the draft preferred District Plan and direction from Council to proceed to the Technical Feasibility Analysis phase in the work program. Selecting a draft preferred District Plan is necessary to proceed with the work program, and will allow staff to focus the technical studies to a single preferred option. This is a more cost-effective approach that will allow for modifications to the District Plan, if deemed necessary.

### **8.2.1 Description of the Details of the Draft Preferred District Plan**

The map in **Appendix F** illustrates the overall draft preferred Mohawk Lake District Plan, which identifies improvements to existing recreation and destination points, the creation of new features, as well as strategies

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to enhance connectivity throughout the District. The District Plan intends to create a complete experience for residents and visitors through the inclusion of multiple amenities and attractions. Movement from one end of the District to the other is intended to be easy and attractive for a range of transportation types – whether walking, cycling, use of public transit or by car. The draft preferred Mohawk Lake District Plan also identifies potential canal crossings to enhance connectivity and movement north and south of the canal to facilitate integration of the Plan with the existing residential neighbourhoods.

The vision for the District is that this will be a welcoming place, where residents and visitors alike will explore all aspects of the District, including recreational activities, cultural facilities, institutional, commercial, and entertainment amenities. Community feedback highlighted the potential that visitors and tourists may spend multiple days within the District. For example, people can spend the day canoeing or cycling through the area and return the next day to visit a museum or other cultural or historical attraction, including those that are located just outside the District on neighbouring Six Nations territory. Or people who are using services provided by one or more community agencies may also have a meal at a nearby café or restaurant or seek respite in the landscaped open spaces. The vision for the District Plan is that this area becomes a multi-faceted destination that will provide people with a sense of community pride through connections to the history and culture of the area and to the surrounding natural and recreational features that already exist within this part of the City.

There are three main areas that comprise the structure of the overall Mohawk Lake District Plan. These areas are identified on the map attached as **Appendix G** and they are referred to as:

- Gateway Area
- Culture and Community Destination Area
- Mohawk Lake and Park Recreational Area

Details of each area are described in the following sub-sections of this Report.

### **8.2.2 Gateway Area**

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The Gateway Area at the western part of the District is intended to be a welcoming entrance to the District and provide a transition to and from Downtown Brantford. Improvements to landscaping, urban design, and pathways for pedestrians and cyclists can improve Greenwich Street as a safe and accessible connection throughout the District and to existing Downtown amenities. There are also several options to help increase activity and generate vibrancy along this corridor by encouraging a mix of medium to higher density mixed commercial and residential development. Presently the draft preferred Plan accounts for the possible extension of the Veterans Memorial Parkway according to the historical 1991 alignment. The Project Team continues to engage with the City's Transportation and Parking Services Department to address any updates regarding the extension of the Veterans Memorial Parkway.

### **8.2.3 Culture and Community Destination Area**

The Culture and Community Destination Area is located in the central portion of the District, where the 50 acre municipally-owned former Greenwich Mohawk brownfield is located. A significant component of achieving the overall vision for the Mohawk Lake District Plan is through the redevelopment and revitalization of the former brownfield lands, and a detailed draft preferred concept for these lands is provided in **Appendix H** of this Report.

The draft Preferred Plan recommends a mix of land uses in the Culture and Community Destination Area. This addresses a wide range of community needs, taking into consideration the breadth of community input which consistently provided the following types of comments:

- *Be a destination for more recreational, cultural, historical facilities, that are supported by commercial retail, restaurants, cafés, etc.;*
- *Be a hub of services for the entire community;*
- *Create beautiful landscaped open spaces for all ages to enjoy; and*
- *Generate economic development, taxes and improve property values.*

As noted in Section 7.2 of this Report, the public was invited to vote on three options of the draft concept plans, and the results showed that the greatest number of people preferred Option 1 (as shown in **Appendix D**), which emphasized an Outdoor Events and Festival Focus District.

While the public preferred Option 1, Staff also received written feedback regarding the green spaces, as some residents were concerned that these spaces may be underutilized or only seasonally used. As well, other written comments indicated there was a need for more options for housing, in particular affordable housing. There were also several comments received in support of community agencies which have expressed interest in relocating to the District, some of which are listed in **Appendix B**. General comments also noted the importance of generating economic activity through tourism and commercial/retail uses that included evening functions.

To address community feedback and taking into account additional technical review by City Staff, the Project Team developed a hybrid of Options 1 and 2, as illustrated in **Appendix H**. A report, titled “Land Use Options Evaluation Report” prepared by the project consultants, outlines the rationale for how the revised hybrid concept responds to the community feedback. This Report is provided in **Appendix I**. This hybrid Culture and Community Destination Area is comprised of the following land uses as described in Table 2 below:

**Table 2: Types and Approximate Area of Land Uses within the Culture and Community Destination Area**

<b>Land Use</b>	<b>Land Area (approximate)</b>	<b>Percentage of Total Land Area</b>
Parks and Open Space	18.5 acres (7.5 hectares)	39%
Mixed Commercial, Institutional & Residential Uses (residential on upper storeys only)	9.9 acres (4.0 hectares)	21%
Institutional Uses	10 acres (4.1 hectares)	21%
Transitional Institutional (a combination of institutional & commercial uses, excl. residential uses on the upper storey)	3.1 acres (1.3 hectares)	6%
Museum Uses	6.4 acres (2.6 hectares)	13%
	<b>Total area: 47.9 acres (19.5 hectares)</b>	

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It is noted that all land areas are approximate and subject to change. However, generally in response to voting results by the community on their preferred option, the predominant land use within the hybrid Culture and Community Destination concept is for parks and open space, representing 39 % of the total land area. Key features included in the Culture and Community Destination Area are described below:

- An enhanced promenade is recommended to improve public access to the Mohawk Canal waterfront. The enhanced promenade is intended to have wider sidewalks and may include dedicated bike paths. Landscaped boulevards would slow down traffic through this section of Greenwich Street to provide a leisurely route to access additional views of Mohawk Lake further east along Greenwich Street. Community feedback was consistently in support of creating this promenade feature that provides connectivity to new and existing trails and other recreational activities.
- As indicated by the dashed pink arrows, there are several recommended potential connections to facilitate pedestrian and some vehicle movement throughout the area. The District Plan recommends that the intersection of Mohawk Street, Greenwich Street, and Murray Street be reviewed to assess the feasibility of re-configuring the intersection to improve traffic flow. To accommodate this, some land has been left vacant to allow the intersection to be redeveloped should the opportunity arise. As mentioned, the draft preferred Plan also identifies potential canal crossings to improve connectivity and integration of the Plan with the existing residential neighbourhoods.
- The District Plan takes into consideration the continued operation of the railway spur line which bisects the majority of the District Area. Presently there is no rail crossing within the former brownfield site, but future implementation of the final Mohawk Lake District Plan may consider negotiating with the owners of the spur line to implement one or more crossings where appropriate. In the short term, the draft Mohawk Lake District Plan recommends that a potential new trail be installed north of the existing rail line to provide east-west connectivity for pedestrians and cyclists through the study area.
- The mixed commercial and institutional land uses, which include the potential for upper storey residential units, are indicated by an orange colour on the plan. These blocks meet the desire for retail,

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restaurants and office uses on the ground-floor providing a range of amenities and services. These land uses, together with the proposed institutional and transitional institutional land uses form a “main street” spine of activity on both sides of a potential north-south connectivity route that helps to integrate and connect the new development to the existing neighbourhoods adjacent to the study area. It is generally good design for any new internal street or driveway to be “double-loaded” meaning that commercial or office-front activity occurs on both sides of the street and enhances the street’s ability to be active with day and evening uses. The potential for upper storey residential uses, and how many storeys, will be confirmed through the technical studies. The mixed commercial, institutional, and upper storey residential blocks are dispersed into a larger 7.2 acre size block south of the spur line, with frontage intended on Mohawk Street and a future internal street or driveway, and a 2.7 acre block north of the rail line, with frontage intended on Mohawk Street and a future internal street or driveway. In the finalized Mohawk Lake District Plan, a more detailed demonstration plan will identify how these blocks can be further sub-divided for various building sizes, parking areas, and landscaped open spaces.

- The institutional uses and transitional institutional uses are indicated by a blue colour on the plan. These blocks are intended to help address the requests of several community agencies to re-locate their services to the Mohawk Lake District. The 10 acre blue institutional use may accommodate such uses as education centres, health facilities, or offices, that some of the community agencies that are proposing. This larger area may be sub-divided into various building blocks of one or more storeys. The 3.1 acre transitional institutional space north of the spur line is for a mix of ground-level commercial options, as well as upper-storey office space and storage facilities that could be used by various community agencies, but unlike the orange mixed-use blocks, there are no upper storey residential options in the transitional institutional use. Both blocks could be further sub-divided for various building sizes, parking areas, and landscaped open spaces.
- As noted, the draft Preferred Plan proposes approximately 39% of the Culture and Community Destination Area to be dedicated for parks and open space type uses. Further Council direction to develop a detailed plan and budget would be required to program new park spaces. The 15.3 acre park and open space area located



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north of the spur line addresses the strong community support for a purpose-built outdoor events or festival space that could accommodate very large community events such as the Canada Day celebrations and Rib-Fest, etc., which attract between 3,000 – 15,000 people. Approximately 6 events of this scale take place each year, with varying attendance numbers. The largest event is the City-hosted Canada Day celebration, followed by the privately sponsored WTFest music event, the Kinsmen Ribest, the privately-sponsored Jazz Festival, and several other community celebrations. Staff anticipates that additional festivals and events would desire a purpose-built venue once built. Through the years, the City has had to turn down over a dozen events due to size restrictions in of the current venue. Recognizing that transportation and on-site parking is a common issue with these large events, a purpose built space would be one that accommodates public transit and other shuttle services to minimize parking requirements. Shared parking could be considered as well. This large area may accommodate a band shell or other permanent stage, landscaped paths and gardens, parking, and other facilities, such as washrooms, playgrounds, general open space, and administrative space. Currently, most large events in the City are held at the Steve Brown Sports Complex which is approximately 10 acres in size and depending on the event, may require stage equipment to be constructed at a cost to the City.

Apart from the Steve Brown Sports Complex, the City often holds large community events at Lion's Park. However this location is challenging due to its size, limited patron and vendor access, parking limitations, proximity to residential neighbors, and disruption/damage to the City's sports field which often require repairs following events. Additionally many sports groups are displaced as a result of field damage.

When not being used for large community events, it is envisioned that the 15.3 acre park could be used for multiple functions, such as informal recreation and sports practices, music in the park, art shows, cultural exhibits, markets, community fireworks, car shows, re-enactment events, filming, family parties and picnics. This large park and open space area as well as the smaller 1.8 acre park and open space area near the intersection of Greenwich Street and Mohawk Street are intended to support the promenade function and facilitate landscaping and activity on both sides of Greenwich

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Street. The smaller area will also function as a gathering area and will help to create a defined entrance and provide an edge to the development area. Lastly, a 1.4 acre strip of open space in the south-east of the study area south of the spur line is intended to provide a landscaped buffer from the existing industrial use located southeast of the City's property.

- A 4.4 acre museum block in the north-western portion of the lands would accommodate the existing Canadian Military Heritage Museum and could allow for an expansion beyond its current leased area of approximately 2.0 acres (if requested by the Museum and approved by Council). Another 2.0 acre museum block in the south portion has been set aside for the Canadian Industrial Heritage Centre's proposal to create an outdoor landscaped facility or the display of artifacts, such as historical tractors, that represent some of the products previously manufactured on site.

#### **8.2.4 Mohawk Lake and Park Recreational Area**

The eastern portion of the Mohawk Lake District Plan includes the existing 50 acre (20 hectare) Mohawk Park, and the 32 acre (13 hectare) Mohawk Lake. The draft preferred Mohawk Lake District Plan intends to enhance connectivity to Mohawk Park and Mohawk Lake from other parts of the District. At this location south of Mohawk Lake, preliminary consideration has been given to potentially shifting Greenwich Street to the south, thereby creating a new open space area adjacent to Mohawk Lake, which, depending on water quality, could be considered for a future boat launch. The realignment of Greenwich Street will be explored further through the technical studies.

It is noted that Public Works Staff are leading a separate project to examine water quality and to implement any future rehabilitation of Mohawk Lake and Canal. The Mohawk Lake District Plan Project Team shares information and collaborates with the necessary Public Works Staff when necessary. Following the rehabilitation of Mohawk Lake, Council direction would be required to complete a separate detailed study of the potential for creating an area that could accommodate a boat launch.

Lastly, as noted in Section 5.0 of this Report, the Alfred Watts Ruins and the entire Mohawk Canal corridor are recognized to have cultural heritage significance. The draft Preferred Plan recommends enhancing access to

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the existing Alfred Watts Ruins as a destination to learn about Brantford's industrial heritage through the extension of trails and creation of new open spaces. As per the 2016 Cultural Heritage Feasibility Study of Mohawk Canal and Alfred Watts Hydro Generating Station Ruins, the Mohawk Lake District Plan may also recommend the designation and preservation of historical features as a cultural heritage landscape.

### **8.2.5 Community Groups' Land or Space Requests**

As summarized in Table 1 of this Report, more than 29 acres would be required to accommodate approximately 191,720 square feet of known space requested by various community groups. The draft preferred plan includes several options to accommodate the land and space requests of the community groups. The community groups may rent or lease space or land within the mixed commercial and institutional spaces with upper storey residential (orange blocks) or the transitional institutional and commercial spaces (blue blocks with orange hatching) or the dedicated institutional spaces (blue blocks), which offers a total of approximately 23 acres of land. If multi-storey buildings are constructed and facilities such as parking are shared, the gross floor area of the community groups requests could likely be accommodated within a smaller area. Therefore, the combined request of 29 acres to accommodate all the community groups may be reduced if some of the groups construct multi-storey buildings and share facilities.

As noted previously, the draft Preferred Plan is not intended to recommend approval of the community requests for land or space at this time. Rather, the draft Preferred Plan identifies areas and approaches that may accommodate these proposals should Council approve them. The technical feasibility studies will review the land use options, including those requested by the Community groups to ensure compatibility with existing neighbouring industrial land uses, and further examine the transportation and infrastructure requirements to support the Plan. Accordingly, Planning Staff recommends that until the technical studies are completed, that no decision is made on any community group request for land or space. It is anticipated that the technical studies will be completed in the third quarter of 2019, at which time, Staff will bring forward recommendations and work with the Mohawk Lake Working Group to develop a process to consider the community groups' proposals for Council consideration.

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## **8.3 Next Steps**

### **8.3.1 Technical Feasibility Studies**

As noted in Section 4.0, the purpose of this Report is to seek Council's endorsement of the draft preferred Mohawk Lake District Plan in order to proceed to the next phase of in the work program, the Technical Feasibility Analysis. Endorsement of the draft District Plan is not the final approval of the Plan. The technical studies are anticipated to be completed in the third quarter of 2019 and will include the following:

- Traffic Impact Study
- Functional Servicing Review / Storm Water Management
- Noise, Odour, Dust, and Vibration Study and Compatibility with Industry
- Environmental Impact Study
- Economic Analysis of the Preferred District Plan

As noted previously, the results of the technical studies may change the types, sizes, and location of land uses within the draft preferred District Plan. The results will also inform Council in regards to any decision-making process to address the land and space requests by the community groups.

### **8.3.2 Supporting Reports for Implementation**

The Project Team will prepare related reports to support the implementation of the Mohawk Lake District Plan. The supporting documents will include:

- A Planning Analysis and Rationale Report;
- Urban Design Guidelines;
- Draft Amendments to the Official Plan and Zoning By-law 160-90;
- A Cultural Heritage Landscape Conservation Plan; and
- Development Staging Plan and Implementation Strategy.

These documents will be part of the finalized Mohawk Lake District Plan for Council's review.

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### 8.3.3 Finalized Mohawk Lake District Plan and Approval

It is anticipated that in the first quarter of 2020, the project team will organize a public information meeting to share the latest project information with the community and any other stakeholders. A presentation and final report to Council seeking approval of the Mohawk Lake District Plan is anticipated to follow in the second quarter of 2020.

## 9.0 Financial Implications

There are no financial implications at this time.

## 10.0 Conclusion

This stage of the Mohawk Lake District Plan is an important milestone for the City. The community has demonstrated its continued support for this project through the extensive quantity and quality of feedback received throughout the District work program. The draft preferred District Plan outlines the Vision to achieve the revitalization of an area that already has important historical, cultural, and recreational significance to the community. The Mohawk Lake District Plan is an opportunity to both strengthen and grow this part of the City of Brantford even further. At this stage, the Project Team is seeking endorsement of the draft preferred Mohawk Lake District Plan, illustrated in **Appendix F** of this Report, and to receive direction to move forward with the technical studies to evaluate and support this Plan prior to finalization.



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Tara Tran, MCIP, RPP  
Senior Planner, Long Range Planning  
Community Development



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Nicole Wilmot, MCIP, RPP  
Manager, Long Range Planning  
Community Development



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Lucy Hives, MCIP, RPP  
Director of Planning  
Community Development



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Paul Moore, MCIP, RPP  
General Manager  
Community Development

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Attachments

Appendix A: Mohawk Lake District Plan Study Area

Appendix B: List of Community Groups that responded with an Expression of Interest

Appendix C: Vision Statement “What We Heard” Summary

Appendix D: Three Options for Draft Redevelopment Concepts of the Former Greenwich Mohawk Brownfield Site

Appendix E: Community Engagement Results Memo (February 2019)

Appendix F: Mohawk Lake District Plan: Overall Draft Preferred Plan

Appendix G: Mohawk Lake District Plan: Vision and Areas

Appendix H: Culture and Community Destination District Draft Preferred Plan

Appendix I: Land Use Options Evaluation Report

Copy to:

Mohawk Lake District Plan Working Group

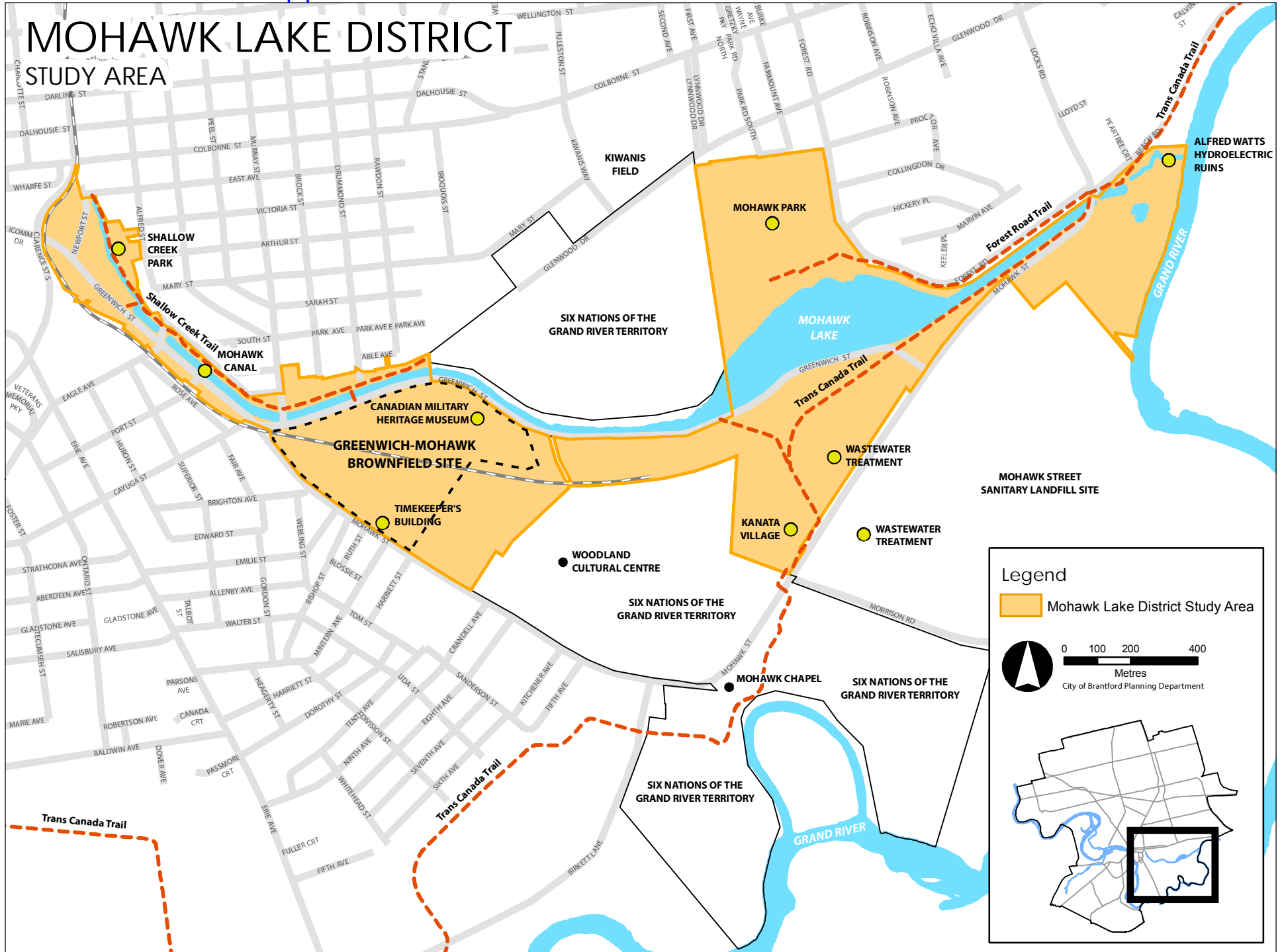
In adopting this report, is a by-law or agreement required? If so, it should be referenced in the recommendation section.

By-law required  yes  no

Agreement(s) or other documents to be signed by Mayor and/or City Clerk  yes  no


Is the necessary by-law or agreement being sent concurrently to Council?  yes  no

# MOHAWK LAKE DISTRICT STUDY AREA



**Legend**

- Mohawk Lake District Study Area
- 0 100 200 400 Metres
- City of Brantford Planning Department





**EXPRESSION OF INTEREST SUBMISSIONS (MAY 2018)**

- 1 Aboriginal Health Centre**
- 2 Lansdowne Children Centre**
- 3 Children's Safety Village**
- 4 Participation Support Services**
- 5 Brant Theatre Workshops**
- 6 Brantford Symphony Orchestra**
- 7 Brant Historical Society**
- 8 Personal Computer Museum**
- 9 Canadian Industrial Heritage Centre**
- 10 Six Nations Polytechnic (May 2019 Notice of Intent)**

**ADDITIONAL LAND USES TO BE CONSIDERED:**

- 1 Potential Brantford Police Services Headquarters**
- 2 Potential Mid-size Performance Space**





**SIX NATIONS**  
POLYTECHNIC

May 1, 2019

Mayor Kevin Davis and Council  
City of Brantford  
100 Wellington Square  
Brantford, Ontario  
N3T 2M2

Re: Interest in Land - Mohawk Lake District

Dear Mayor Davis and Council

Please accept this letter as notification of Six Nations Polytechnic's (SNP) intent to submit a formal expression of interest for a parcel of land located in the Mohawk Lake District, in the City of Brantford.

As your Council may know, SNP has a ten-year lease agreement at 411 Elgin Street that expires in April 2025. While there is a provision in our lease to extend the lease for an additional 5 years, we have been notified by our landlord that this provision will not be executed.

The land we are seeking will be used to provide educational offerings that model current programs including skilled trades, college, and university.

Respectfully,

Linda Parker  
A/Director of Operations and Advancement

MOHAWK LAKE DISTRICT PLAN

EXPRESSION OF INTEREST SUBMISSION SUMMARY (discussed JUNE 2018)

COMMUNITY GROUP	LAND REQUEST	SPACE REQUEST (tenant in a building)	PROPOSAL / LAND USES	CITY FUND REQUEST	FUNDING REQUIRED	TIMING
<p><b>1/ De dwa da dehs nye&gt;s Aboriginal Health Centre (DAHC)</b></p>	<ul style="list-style-type: none"> <li>• <b>3 to 5 acres</b></li> <li>• Min. building size: 45,720 sq.ft</li> <li>• Max. building size: total of 50,000 sq. ft for additional community hub partnerships</li> <li>• One storey building preferred, but would consider multiple storey building</li> <li>• Outdoor landscaped area, possibly a sweat lodge</li> <li>• On-site parking</li>   <li>• <b>Existing facility size: 5,545 sq. ft over 3 storeys; 0.125 acres</b></li>   <li>• <b>Request to re-locate and expand existing facility (36 King St)</b></li> </ul>		<ul style="list-style-type: none"> <li>• A hub for Indigenous People to access a range of health and social services</li>   <li><u>Land uses</u></li> <li>• Health centre</li> <li>• Administrative offices</li> <li>• Multi-purpose meeting and event rooms</li> <li>• Kitchen and laundry rooms</li> <li>• Classrooms</li> <li>• Gymnasium and fitness rooms</li> <li>• Complementary retail uses, including pharmacy services, cafe</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Donation of land to build purpose-built building</b></li> </ul>	<ul style="list-style-type: none"> <li>• \$15.6 million for new build</li> </ul> <p><u>Funding sources include:</u></p> <ul style="list-style-type: none"> <li>• Ministry of Health &amp; Long Term Care will provide capital funding for various eligible components</li> <li>• DAHC will fundraise \$4.1 million</li> </ul>	<ul style="list-style-type: none"> <li>• Confirmation of site selection in 2019.</li> <li>• DAHC occupancy of new building in 2020-2021 fiscal year.</li> </ul>
<p><b>2/ Lansdown Children Centre (LCC)</b></p>	<ul style="list-style-type: none"> <li>• <b>9 acres</b></li> <li>• Approximate building size: 102,000 sq.ft</li> <li>• Two storey building can be considered</li> <li>• Outdoor play and therapy space</li> <li>• On-site parking</li>   <li>• <b>Existing facility size: 26,596 sq.ft</b></li> <li>• <b>Request to re-locate and expand existing facility (39 Mount Pleasant St)</b></li> </ul>		<ul style="list-style-type: none"> <li>• An educational centre for children and youth with physical, communications and developmental challenges for rehabilitation, respite, and recreation.</li>   <li><u>Land uses</u></li> <li>• Classrooms</li> <li>• Administrative offices</li> <li>• Respite rooms (weekend live-in respite) (2000 sq.ft)</li> <li>• Gymnasium and fitness rooms, including pools</li> <li>• Multi-purpose meeting and event rooms</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Donation of land to build purpose-built building</b></li> <li>• Notional capital support towards capital construction</li> <li>• Support regarding future soil and groundwater monitoring, if required</li> <li>• By-law support around zoning</li> <li>• Public transportation access</li> </ul>	<ul style="list-style-type: none"> <li>• \$53.8 million for new build and related project costs</li> </ul> <p><u>Funding sources include:</u></p> <ul style="list-style-type: none"> <li>• Ministry of Children and Youth Services will provide some funding</li> <li>• Annual Fundraising campaigns</li> </ul>	<ul style="list-style-type: none"> <li>• Construction implementation: June 2020</li> <li>• LCC occupancy of new building: Nov. 2024</li> </ul>

MOHAWK LAKE DISTRICT PLAN

EXPRESSION OF INTEREST SUBMISSION SUMMARY (discussed JUNE 2018)

COMMUNITY GROUP	LAND REQUEST	SPACE REQUEST (tenant in a building)	PROPOSAL / LAND USES	CITY FUND REQUEST	FUNDING REQUIRED	TIMING
<p><b>3/ Children's Safety Village (CSV)</b></p>	<ul style="list-style-type: none"> <li>• <b>2 to 2.5 acres</b></li> <li>• Outdoor village, plus a building for classrooms, bathrooms, kitchen, offices, storage</li> <li>• On-site parking, including buses</li> <li>• Consideration that the site might be a location for community emergency operations</li> <li>• <b>Existing facility size: 2 acres</b></li> <li>• <b>Request to re-locate existing facility (407 Elgin St)</b></li> </ul>		<ul style="list-style-type: none"> <li>• A miniature village educational centre specially designed to teach the fundamentals of safety for children ages 4-12.</li> </ul> <p><u>Land uses</u></p> <ul style="list-style-type: none"> <li>• Outdoor education facility with miniature buildings, roads, sidewalks, etc.</li> <li>• Classrooms</li> <li>• Administrative offices</li> <li>• Kitchen</li> <li>• Multi-purpose meeting and event rooms</li> <li>• Storage area</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Donation of land to build purpose-built building</b></li> <li>• Long term lease (25 years +)</li> <li>• Financial contribution for capital construction</li> <li>• Continued partnership with local police, fire departments</li> </ul>	<ul style="list-style-type: none"> <li>• \$2-3million to move existing village and build new classroom/office space</li> </ul> <p><u>Funding sources include:</u></p> <ul style="list-style-type: none"> <li>• Kiwanis Club of Brantford</li> <li>• Annual fundraising campaigns</li> </ul>	<ul style="list-style-type: none"> <li>• Construction implementation: Spring 2021</li> <li>• CSV grand opening: Spring 2022</li> </ul>
<p><b>4/ Participation Support Services</b></p>	<ul style="list-style-type: none"> <li>• <b>Land to accommodate a new purpose-built building, approx. 6,000-7,000 sq. feet</b></li> <li>• <b>Existing facility size: approx. 6,000 sq.ft</b></li> <li>• <b>Request to re-locate and expand existing facility (10 Bell Lane)</b></li> </ul>		<ul style="list-style-type: none"> <li>• A centre that provides supports and services to individuals with a physical disability, as well as individuals with complex health care needs, and seniors. Supports include day-use facilities, as well as specially-designed supportive housing, long term, transitional, and respite care.</li> </ul> <p><u>Land uses</u></p> <ul style="list-style-type: none"> <li>• Administrative offices</li> <li>• Apartments (long-term housing)</li> <li>• Senior's supportive housing</li> <li>• Common areas (kitchen)</li> <li>• Laundry facility</li> <li>• Spa</li> <li>• Multi-purpose meeting rooms</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Donation of land to build purpose-built building</b></li> <li>• Similar lease as the current arrangement at 10 Bell Lane</li> <li>• Financial contribution for capital construction</li> <li>• Financial contribution for development fees, etc.</li> <li>• Support with the re-purposing of the existing facility at 10 Bell Lane</li> </ul>	<ul style="list-style-type: none"> <li>• \$1.17 million for new build</li> </ul> <p><u>Funding sources include:</u></p> <ul style="list-style-type: none"> <li>• Possible grants for affordable housing and mortgage financing</li> <li>• Annual fundraising campaigns</li> </ul>	<ul style="list-style-type: none"> <li>• 5 years til shovel ready (~2023)</li> </ul>

MOHAWK LAKE DISTRICT PLAN

EXPRESSION OF INTEREST SUBMISSION SUMMARY (discussed JUNE 2018)

COMMUNITY GROUP	LAND REQUEST	SPACE REQUEST (tenant in a building)	PROPOSAL / LAND USES	CITY FUND REQUEST	FUNDING REQUIRED	TIMING
5/ Brant Theatre Workshops		<ul style="list-style-type: none"> <li>3000 sq.ft</li> <li>Outdoor Theatre, amphitheatre facility, rehearsal hall, office, storage.</li> <li>Existing office and storage size: 1,400 sq.ft</li> <li>Request to re-locate existing office and storage (340 Henry St)</li> </ul>	<ul style="list-style-type: none"> <li>A mid-size performance space; also offices and storage, and production space for light construction of sets and props.</li> </ul> <p><u>Land uses</u></p> <ul style="list-style-type: none"> <li>Administrative offices</li> <li>Theatre</li> <li>Rehearsal hall</li> <li>Storage</li> <li>Potentially other cultural activities (art, museum, music)</li> </ul>	<ul style="list-style-type: none"> <li>A lease agreement for space</li> </ul>	<ul style="list-style-type: none"> <li>Currently renting all required space and would continue to do so</li> </ul>	<ul style="list-style-type: none"> <li>When space is available</li> </ul>
6/ Brantford Symphony Orchestra		<ul style="list-style-type: none"> <li>14,000 sq.ft space</li> <li>Warehouse/storage</li> <li>Offices</li> <li>Parking for 100 cars</li> <li>Existing facility size: Office space is 1,775 sq.ft</li> <li>Request to have a guaranteed space to rent for 2 months (current office space at 99 Chatham St)</li> </ul>	<ul style="list-style-type: none"> <li>A facility to prepare for and hold an annual 2 month book sale, including parking, storage, washrooms. Year-round offices and storage</li> </ul> <p><u>Land uses</u></p> <ul style="list-style-type: none"> <li>Warehouse/Storage</li> <li>Large multi-purpose room</li> <li>Kitchen</li> </ul>	<ul style="list-style-type: none"> <li>A lease agreement for space for 2 months of the year</li> </ul>		<ul style="list-style-type: none"> <li>New facility in operation for April 2021 Book Sale</li> </ul>
7/ Brant Historical Society		<ul style="list-style-type: none"> <li>15,000 sq.ft space</li> <li>Existing facility size: 7,000 sq.ft</li> <li>Request to re-locate and expand existing facility (57 Charlotte St)</li> </ul>	<ul style="list-style-type: none"> <li>A museum and archives</li> </ul> <p><u>Land uses</u></p> <ul style="list-style-type: none"> <li>Museum</li> <li>Storage</li> <li>Administrative offices</li> </ul>			
8/ Personal Computer Museum		<ul style="list-style-type: none"> <li>5,000 sq.ft space</li> <li>Existing facility size: 1,700 sq.ft</li> <li>Request to re-locate and expand existing facility (13 Alma St)</li> </ul>	<ul style="list-style-type: none"> <li>A museum</li> </ul> <p><u>Land uses</u></p> <ul style="list-style-type: none"> <li>Museum</li> <li>Storage</li> <li>Administrative offices</li> </ul>			

**MOHAWK LAKE DISTRICT PLAN**

**EXPRESSION OF INTEREST SUBMISSION SUMMARY (discussed JUNE 2018)**

COMMUNITY GROUP	LAND REQUEST	SPACE REQUEST (tenant in a building)	PROPOSAL / LAND USES	CITY FUND REQUEST	FUNDING REQUIRED	TIMING
<p><b>9/ Canadian Industrial Heritage Centre</b></p>	<ul style="list-style-type: none"> <li>• 2 acres</li> <li>• Creation of a new facility</li> </ul>		<ul style="list-style-type: none"> <li>• An outdoor, landscaped space to preserve, promote, and honour industrial heritage</li> </ul> <p><u>Land uses</u></p> <ul style="list-style-type: none"> <li>• Outdoor display of artifacts and information</li> <li>• Preservation of existing Timekeepers building</li> <li>• Multi-purpose landscaped outdoor open space/park</li> </ul>	<ul style="list-style-type: none"> <li>• A lease agreement for land</li> </ul>	<p><u>Funding sources include:</u></p> <ul style="list-style-type: none"> <li>• Possible grants</li> <li>• Fundraising</li> </ul>	<p>When space is available and a lease agreement is executed</p>



# WHAT WE HEARD

at the Public Design Workshop #1 on March 29, 2018

# PRINCIPLES



## VIBRANT NEIGHBOURHOOD

Mohawk Lake District will be a vibrant and beautiful district that will attract residents and visitors to the area.



## CENTRE FOR TOURISM

Mohawk Lake District will be a key attraction and destination for artistic, recreational and cultural tourism.



## CITY'S RECREATIONAL CENTRE

Mohawk Lake District will provide for a wide range of recreational uses and activities available to the public.



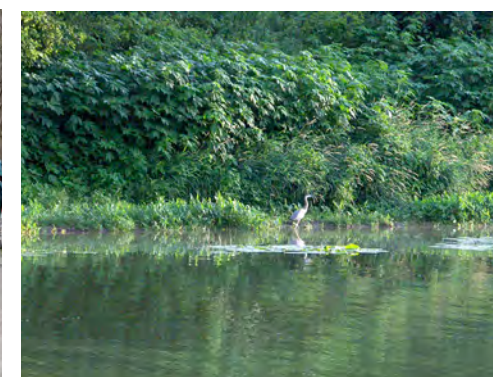
## CONSERVE AND CELEBRATE HERITAGE

Mohawk Lake District has a strong natural, cultural and industrial heritage that will be respected and enhanced.



## HOLISTIC & CONNECTED

The Mohawk Lake District will be designed and connected as a unified, welcoming place.



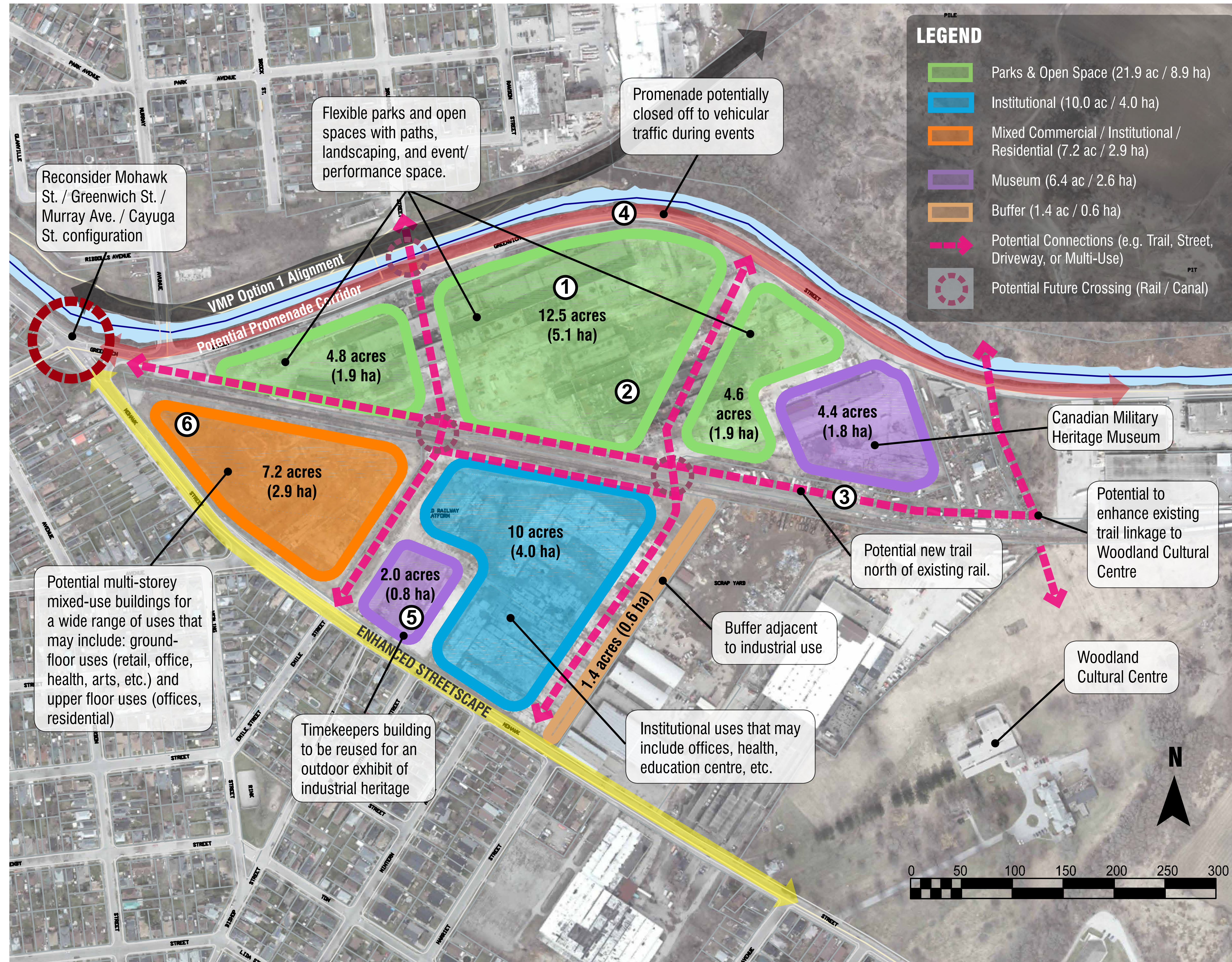
## SUSTAINABLE COMMUNITY

Development in Mohawk Lake District will incorporate innovative, sustainable practices to create a greener community.

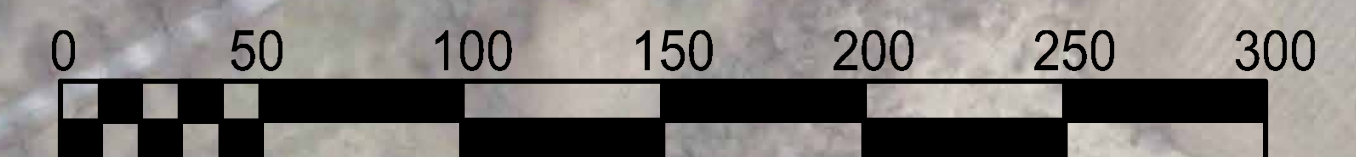
# OPTION 1

## OUTDOOR EVENTS AND FESTIVAL FOCUS

A destination for major cultural events and festivals. The primary land uses include a large purpose-built event area with associated parks and open spaces, an institutional area, and some mixed commercial and institutional uses.



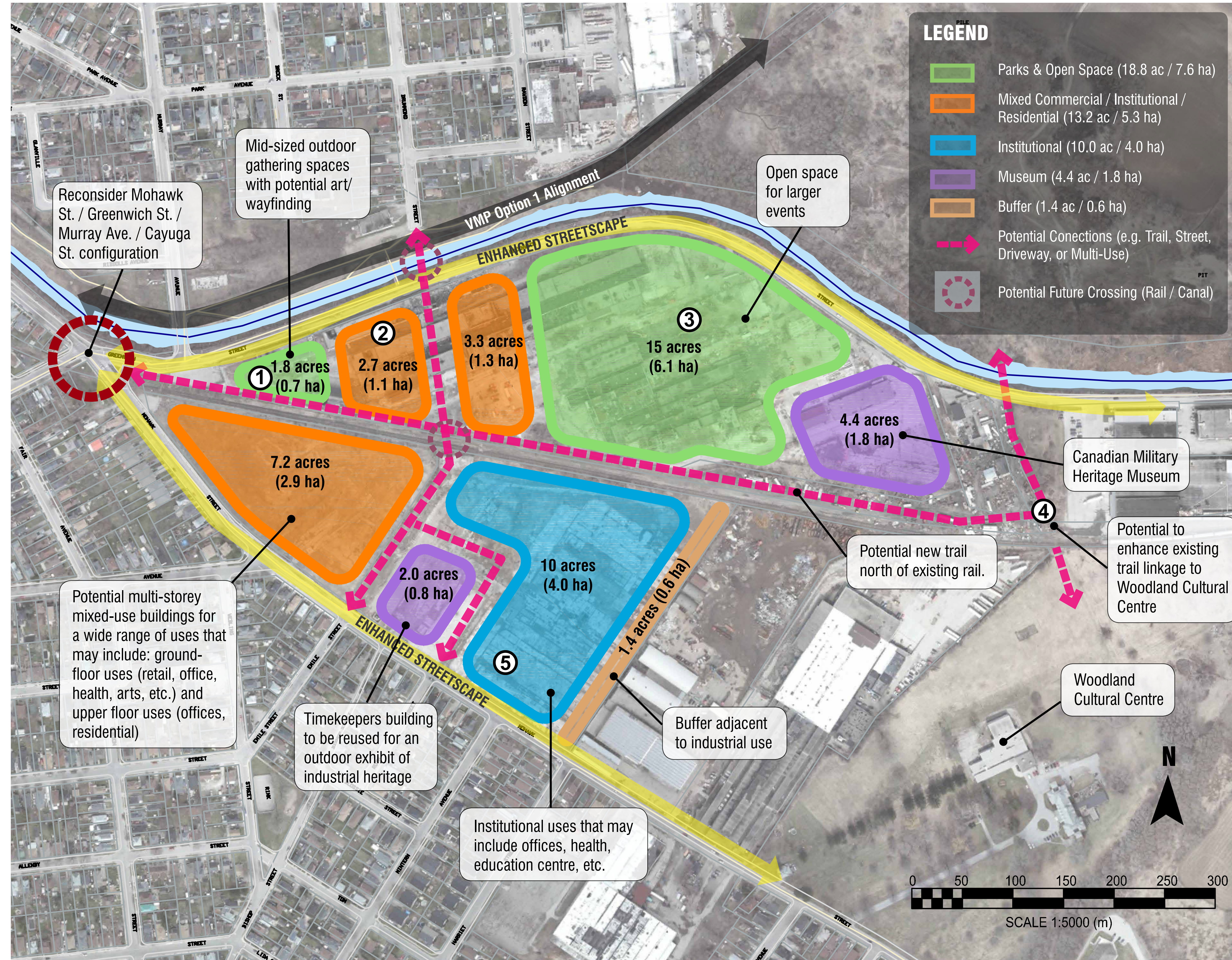
October 2018



# OPTION 2

## CULTURE AND COMMUNITY FOCUS

A destination for both cultural gatherings and community and commercial services. A balance of land uses that include a multi-purpose open space, several options for mixed commercial and institutional uses with potential upper-story residential, and an institutional area.



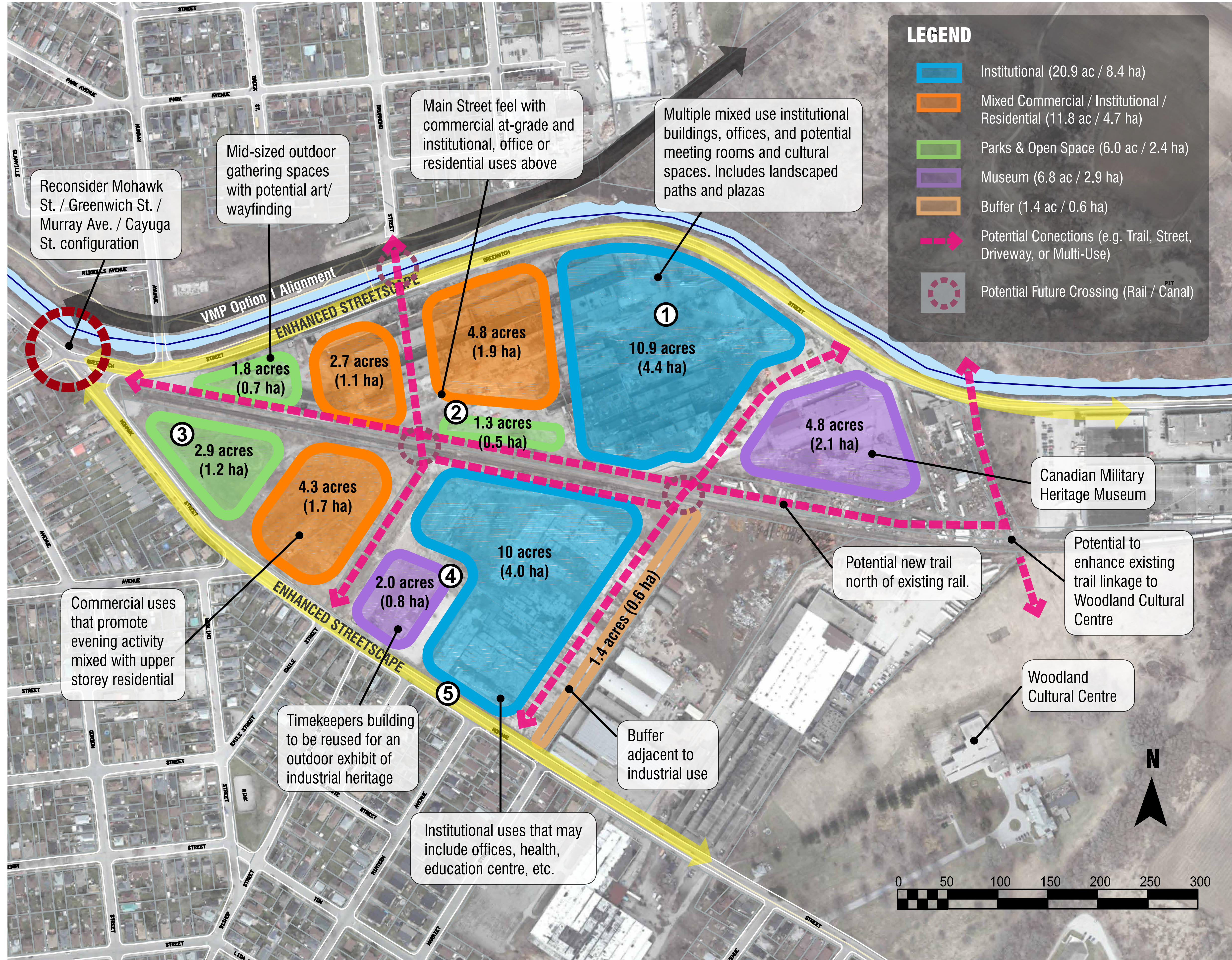
October 2018



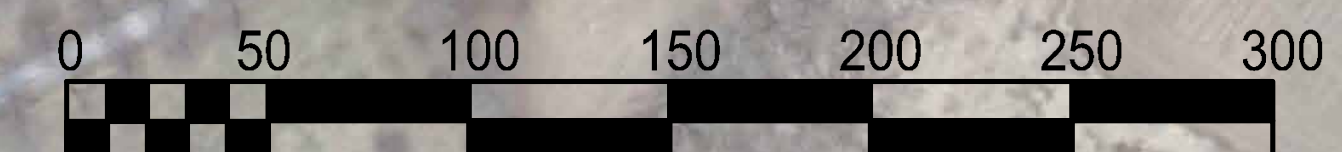


# OPTION 3 COMMUNITY SERVICES FOCUS

Primarily a destination for community services, including large institutional areas, and options for mixed commercial and institutional uses with potential upper-story residential. The space may be campus format with smaller scale public gathering spaces



October 2018



## MEMO

**TO:** Tara Tran  
**FROM:** John Tassiopoulos and Valentina Chu  
**SUBJECT:** Mohawk Lake District Plan – Results and Analysis of Public Open House #2 and Online Survey Voting  
**DATE:** February 15, 2019

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### Introduction & Purpose

Three land use concepts for the Mohawk Lake District Plan area were developed based on extensive input provided by City staff and from the public at the Public Open House Meeting #1, held on March 29, 2018. These concepts were further developed and refined over the course of the year from comments by City staff and our study team into three conceptual plan options:

- **Option 1 – Outdoor Events & Festival Focus** - *A destination for major cultural events and festivals. The primary land uses include a large purpose-built event area with associated parks and open spaces, an institutional area, and some mixed commercial and institutional uses;*
- **Option 2 – Culture and Community Focus** - *A destination for both cultural gatherings and community and commercial services. A balance of land uses that include a multi-purpose open space, several options for mixed commercial and institutional uses with potential upper-story residential, and an institutional are; and,*
- **Option 3 – Community Services Focus** - *Primarily a destination for community services, including large institutional areas, and options for mixed commercial and institutional uses with potential upper-story residential. The space may be campus format with smaller scale public gathering spaces.*

These options were presented at Public Open House #2 (November 28, 2018) and posted on the City's website, with an online survey, to receive comments on the option most preferred. In both instances the engagement of the public included:

1. a simple **voting process** of selecting which option was most preferred; and
2. asking respondents to **comment** on what they liked about their selected option.

The Public Open House #2 was attended by over 100 residents (92 signed -in but more than one hundred were counted) and the online survey was completed by 544 respondents. This robust response required that we not only review the general preferred voting, but also look at

the commentary in order to inform our team’s determination of which option(s) should be further developed into a preferred plan for the study.

The purpose of this memorandum is to provide a general outline of the public feedback received at the Public Open House #2 and from the on-line survey that was posted on the City’s website (December 13, 2018 to January 14, 2019) with respect to the three conceptual plan options developed for the Mohawk Lake District Plan’s brownfield area. As part of the process of identifying a preferred or hybrid plan option, the review of voting selection of most preferred and least preferred option, along with identifying common themes of why an option was preferred, is essential. The review and the results of the comments will help inform next steps and assist in the selection of a preferred plan that will be more fully developed into a demonstration plan for the study area. The memo and tables below provide a summary of the results and the major themes that were identified in the review of the comments received. The following sections provide an analysis and highlight recurring themes in the comments received from the public engagement session and survey.

## PART A – PUBLIC OPEN HOUSE MEETING #2

The Public Open House Meeting #2 was held on November 28, 2018 in which 92 people signed in. Not every participant signed in on the attendance sheets which suggests that the actual number of participants was beyond 100 attendees. The three conceptual plan Options were presented to those in attendance providing highlights of their respective land use structure and their differences.

### 1. Results of Voting for the Preferred Option

Following the presentation, the public was asked to vote on their preferred Option out of either Option 1 (Outdoor Events and Festivals), Option 2 (Culture and Community), and Option 3 (community services). The participants were each given one large green dot sticker to represent their most preferred option and one large red dot sticker to represent their least preferred option. Table 1 shows the results of votes for and against each with respect to each option.

**Table 1 – Most Preferred vs. Least Preferred Option Votes (November 28, 2018)**

OPTION	MOST PREFERRED	LEAST PREFERRED
Option 1: Outdoor Events and Festival Focus	35	14
Option 2: Culture and Community Focus	26	4
Option 3: Community Services Focus	8	35

Based on the voting activity, most participants indicated a preference towards Options 1 and 2 with 35 and 26 votes, respectively, selecting it as them “most preferred” options. Option 2 is distinguished from the other Option 1 by having only 4 votes, the fewest, within the “least preferred” category. Option 3 was given 35 the “least preferred” votes and the lowest “most preferred” assignment with only 8 votes.

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The participants were also each given three small green dot stickers to indicate their “likes” and three small red dots to indicate their “dislikes” of the land uses proposed within each Option. Tables 2 to 4, below, summarize the results of land use type “likes” and “dislikes” of each option (See Appendix A for photos of the activity boards).

Although this portion of the public voting was not as clear as the simple voting for the preferred Option, as noted in Table 1 above, it did provide some general preferences with respect to land use allocations in each Option. Following each table, we have provided a brief analysis with respect to the voting.

**Table 2 – Option 1 Outdoor Events and Festival Focus: Likes and Dislikes**

LOCATION OF VOTING DOT	LIKES	DISLIKES
4.8 Acre Park & Open Space	3	3
12.5 Acre Park & Open Space	<b>9</b>	<b>12</b>
4.6 Acre Park & Open Space	2	2
4.4 Acre Museum	7	0
7.2 Acre Mixed Use	7	3
2.0 Acre Museum	<b>6</b>	0
10.0 Acre Institutional	1	3

The results of land use preference for Option 1 was interesting because although it was the most preferred concept plan the park and open space land uses that are the focus of this Option were generally equal in terms of likes and dislikes with the exception of the largest park and open space. The mixed-uses were positive while the museum uses were the only uses that had no “dislikes”. The Institutional use had more negative than positive votes even though there were only four total votes.

**Table 3 – Option 2 Culture and Community Focus: Likes and Dislikes**

LOCATION OF VOTING DOT	LIKES	DISLIKES
1.8 Acre Park & Open Space	3	0
2.7 Acre Mixed Use	0	<b>4</b>
3.3 Acre Mixed Use	<b>4</b>	<b>7</b>
15.0 Acre Park & Open Space	<b>10</b>	1
4.4 Acre Museum	2	1
10.0 Acre Institutional	<b>4</b>	0
2.0 Acre Museum	2	1
7.2 Acre Mixed Use	<b>8</b>	<b>5</b>

The results of land use preference for Option 2 were also interesting because whereas in Option 1 large park and open space use had more dislikes than likes, the largest space in this Option had the largest number of "likes" and the smaller park space also received only positive votes. With respect to the Mixed Uses it appears that the larger area was preferred while the smaller areas, on the north side of the Option, were not. What was slightly puzzling was that in this Option the same 10.0 acre Institutional use indicated in all three Options, received only positive votes. The Museum uses were again positively selected but with fewer overall votes and not unanimously as per Option 1.

**Table 4 – Option 3 Community Services Focus: Likes and Dislikes**

LOCATION OF VOTING DOT	LIKES	DISLIKES
1.8 Acre Park & Open Space	1	0
2.7 Acre Mixed Use	0	3
4.8 Acre Mixed Use	3	2
1.3 Acre Park & Open Space	2	3
10.9 Acre Institutional	2	<b>8</b>
4.9 Acre Museum	2	0
10.0 Acre Institutional	0	1
2.0 Acre Museum	0	0
4.3 Acre Mixed Use	2	0
2.9 Acre Park & Open Space	3	0

The results of land use preference for Option 3 were not generally definitive because of the very low number of votes for both "likes" and "dislikes" which indicates a lower interest by participants which is consistent with the Table 1 results noting that this was the least preferred of all the Options. Compared to the number of votes for land uses observed for Options 1 and 2 (58 and 48 respectively) only 23 total votes, 12 of which were "dislikes", were counted for Option 3. The majority of the "dislikes" centred on the 10.9 acre Institutional use on the north side of the Option. The other uses 3 votes or less so it was difficult to discern clear preference due to the low number of votes.

**2. Results of the Review of Comments Posted on the Options**

In addition to the voting process that took place during the Public Open House, participants were also provided with adhesive notes were also distributed to participants to allow them to provide more detailed comments and feedback on the three Options. These comments were placed on the Options by participants and were recorded by the Study Team. Although not all the comments were specific to land uses in each option and preference there were some recurrent commentary themes that were identified in each Option.

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## **a. General Comments for Option 1**

A total of 42 comments were provided and recorded for Option 1 and included the following general themes:

- The provision of green spaces was appreciated and there was a concern about ensuring that they are not underutilized and that they include indoor and outdoor uses to ensure that use is not only seasonal;
- Ensure connectivity to surrounding trails and to connect to the Canal area;
- There was general support for the creation of a promenade along the north edge of the Option and adjacent to a naturalized Canal area;
- Provision of commercial/retail that contributes to evening or night life uses; and,
- Desire for more residential uses and interest in what types of residential uses will be introduced in this Option.

## **b. General Comments for Option 2**

A total of 19 comments were provided and recorded for Option 2 and included the following general themes:

- There was general interest and support with respect to trails; and,
- There were a few instances where it was asked if a promenade as per Option 1 could be introduced in this Option to ensure increased foot traffic.

## **c. General Comments for Option 3**

A total of 20 comments were provided and recorded for Option 3 and included the following general themes:

- There was general interest and support with respect to new trails, connection to existing trails and connectivity to the canal and to the adjacent indigenous areas; and,
- There were references to the provision of affordable housing and housing on Mohawk Street; and,
- There was concern about whether there was demand for the extent of Institutional uses in this Option.

## **3. Conclusions on Voting Results and Comments from Public Open House #2**

Given the above voting results and review of the comments received at the Public Open House we arrived at the following conclusions and recommendations:

- Based on the Table 1 results, Option 1: Outdoor Events and Festival Focus garnered the largest number of “most preferred” votes (35 votes) while Option 2: Culture and Community Focus was second in voting (26 votes) and had the lowest number of “least preferred” votes (4 votes) compared to Option 1’s (14 votes). Option 3

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- overwhelmingly received the most “least preferred” votes (35 votes) with the lowest “most preferred” votes (8 votes). **Based on the simple voting process we can conclude that both Options 1 and 2 were the “most preferred”;**
- Noting that Options 1 and 2 were the “most preferred”, we can turn to the finer grain of voting for land use “likes” and “dislikes” as indicated in Tables 2 and 3 above:
  - There was overwhelming support for the Museum uses as indicated in both plans;
  - The Parks and Open Space uses for Option 2 received much more positive support than those in Option 1 which either received equal number of “likes” and “dislikes” for the smaller park spaces while the largest 12.5 acre parcel received more negative as compared to positive votes (12 to 9 votes);
  - With respect to Mixed-Uses the 7.2 acre parcel on the south side of both Options when added received mostly positive votes ( 15 “likes” vs. 8 “dislikes”). The Mixed-Uses on the north side of Option 2 generally received negative votes; and,
  - The most obvious inconsistency was found in the Institutional use which although being identical in size, configuration and uses on the south side of both Options 1 and 2 only received positive support In Option 2.

Based on the voting on land uses we note that there doesn't appear to be support for the full extent of parks and open space configuration on the north side of Option 1 while there was limited support for Mixed-Uses on the north side. This begs the question then what is actually desired on the north side if Option 1 park spaces, Option 2 mixed uses and Option 3 institutional uses are all not supported, then what is? **Given this conundrum and inconsistencies in response noted we believe that the land use range presented in Option 2 should be provided in Option 1, with adjustments to reduce the Park and Open Space uses could potentially achieve a more supportable Option;**

- The only information to be gleaned from the Option 3 land uses preferences was that the large Institutional 10.9 acre parcel on the north side received the greatest number of “dislike” (8 votes) which was significant as all other land uses received between 0 and 3 votes. **Given that neither Options 1 or 2 include this large Institutional land use, it can be concluded that the participants did not support this use in this location;** and,
- The review of the comments received for each of the Options provided the following themes with respect to preferred uses and activities:
  - Parks and Open Spaces in the Options 1 and 2 were perceived positively but there was concern that if too much is dedicated to this use it may be underutilized;
  - Comments for all three Options noted the need to ensure trail connectivity both within the proposed Options and to existing trails, the Canal and to adjacent Indigenous areas, where possible;
  - There was consistent interest in the development of a Promenade along the north side of the Options;

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- Option 1 was criticized for not including more residential uses while there was an interest in the provision of affordable housing in Options 2 and 3; and,
- Some desire was expressed in the provision of commercial/retail uses that included evening/night time function.

Noting the earlier inconsistencies in bullet 2 above, these general comments provide additional direction and **support for the land use range presented in Option 2 with the addition of a promenade, commercial / retail uses, and trail connectivity.**

### PART B – ONLINE SURVEY RESULTS AND COMMENTS

In addition to Public Open House #2, an online survey was undertaken between December 13, 2018 and January 14, 2019. This survey reached 544 participants, of which approximately 15% were from Ward 1, 13% were from Ward 2, 16% were from Ward 3, 13% were from Ward 4 and 26.5% were from Ward 5. The remaining 16.5% were either not from Brantford, didn't know what Ward they resided in or left the answer blank.

*Table 5 – Online Survey Participation by Ward (Online Survey – January 14, 2018)*

WARDS	Survey Participants	%	Attended POH #2	Duplication %
Ward 1	81	15	6	7
Ward 2	72	13	6	6
Ward 3	84	16	4	5
Ward 4	73	13	4	5
Ward 5	<b>144</b>	<b>26.5</b>	<b>11</b>	<b>8</b>
Non-Resident, Unsure, Blank	90	16.5	4	4
<b>Total</b>	<b>544</b>	<b>100</b>	<b>35</b>	<b>N/A</b>

Ward 5 had the highest number of participants in the survey which is to be expected as the Mohawk Lake District Plan study is located within Ward 5. The distribution of participants from other Wards was fairly evenly distributed which shows that the neighbouring Wards had equal interest in the project.

Out of the 544 online participants, 496 responded that they did not attend the Public Open House Meeting #2 held on November 28, 2018 while 35 participants responded that had attended, and 12 participants did not respond to this question. This shows that the survey was able to reach a great number of participants the majority of whom identified themselves as residents of a City Ward (approximately 83.5%) and that only a small number of participants (6%) indicated that they had also attended Public Open House #2 with the potential for duplication or “being counted twice” was very low (4 to 8%).



## 1. Results of Voting for the Preferred Option – Online Survey

As per the Public Open House voting on the preferred Option, the same three Options were presented and online participants were asked to select their preferred Option; Table 6 below provides the results of the online voting.

**Table 6 – Most Preferred vs. Least Preferred Option Votes (Online Survey – January 14, 2018)**

OPTION	MOST PREFERRED	%
Option 1: Outdoor Events and Festival Focus	217	40
Option 2: Culture and Community Focus	129	24
Option 3: Community Services Focus	185	34
No Option Chosen	13	2
<b>TOTAL</b>	<b>544</b>	<b>100</b>

The participants of the online survey were asked to select their preferred option. Option 1 was preferred by 40% of participants, Option 2 was preferred by 24% of participants and Option 3 was preferred by 34% of participants. Similar to the Public Open House Meeting #2, more participants preferred Option 1. What was surprising was that Option 3 garnered preferred votes than Option 2 which differed significantly from the input recorded at Public Open House #2.

## 2. Review of Comments on Why Option was Chosen

Following the online survey’s request to select a preferred Option, it was followed by the following question:

*“Tell us a bit more about why you like the option that you picked in Question 3. Are there any aspects of that option that could be improved?”*

To understand the results to this question we reviewed the responses and tried to identify common themes with respect to preferences as they applied to each Option.

### a. General Comments for Option 1

The participants that chose Option 1 chose this option due to their preferences for the following attributes they identified in its design:

- More outdoor recreational areas and event spaces for festivals and other community activities;
- More outdoor open green spaces, parks and connection to trails;
- Felt this Option would satisfy needs of a range of Brantford residents;
- A stronger sense of community and providing more family-friendly activities;
- Large green interface with and connectivity potential to the Canal;
- Potential for large outdoor special events and venues;
- Preservation of nature;

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- Potential to attract visitors as a destination for events;

In reviewing the comments, it was noted that of the 217 respondents that preferred Option 1, 75 respondents (approximately 35%) left the comment section, on why they liked that Option, blank.

When asked where the respondents lived, 3 did not live in Brantford and 15 left the response blank, for a total of 18. Of these 18 respondents 13 indicated unanimously that they liked Option 1 because of the significant park and open space areas and the potential of a venue to hold large events.

Some participants who chose Option 1 also highlighted some items to keep note of including:

- There was a general concern about not including too much residential use and what form that residential use may take. Comparatively, the Public Open House #2 respondents, criticized the lack of potential residential in Option 1.

### ***b. General Comments for Option 2***

The participants that chose Option 2 chose this option due to their preferences and following attributes they identified in its design:

- Most balanced approach; a good mix/balance of uses between commercial, residential, institutional and green space;
- There is still the opportunity for large outdoor space for festivals and large events;
- A cultural hub;
- Potential new housing and affordable housing opportunities
- Connection with neighbours; and,
- Feeling this Option will generate more tax revenue for the City.

Some participants who chose Option 2 also highlighted some items to keep note of including:

- Have regard for local culture especially with respect to indigenous groups;
- Consider incorporating indigenous design approaches (e.g. Helen Betty Osbourne Ininiw Educational Resource Centre -Norway House - and The Forks, Winnipeg)
- Paying attention to providing enough parking;
- Support for the idea of a “Main Street” as indicated in Option 3;
- Emphasis on connection to trails and walkability and integration with canal, surrounding parks, and trail systems;

In reviewing the comments, it was noted that of the 129 respondents that preferred Option 2, 43 respondents (approximately 33%) left the comment section, on why they liked that Option, blank.

When asked where the respondents lived, 7 did not live in Brantford and 8 left the response blank, for a total of 15. Of these 15 respondents 8 of them provided comments on why they preferred Option 2 and it was generally because of the balanced approach between the mix of uses while maintaining significant park and open space areas.

### *c. General Comments for Option 3*

The participants that chose Option 3 chose this option due to their preferences and following attributes they identified in its design:

- Feel that Brantford requires more community services and those currently serving the community are outgrowing current location and many referred to creating a community services “hub”;
- Many mentioned that the community services focus of this Option was preferred for the accommodation of a new facility for Lansdowne Children’s Centre;
- Preferred this Option over the concern that large park spaces would be dependent on events and festivals leading to underutilization; they are costly to maintain, and that there were already parks/green spaces in the City;
- Many felt this Option would provide greater tax revenue to the City through the Institutional and Mixed Use of the Option;
- Mixed Uses were seen as a chance to provide housing and to support more life and greater activity; and,
- There were suggestions that the Option could benefit from additional park space.

In reviewing the comments, it was noted that of the 185 respondents that preferred Option 2, 69 respondents (approximately 37%) left the comment section, on why they liked that Option, blank.

When asked where the respondents lived, 35 did not live in Brantford and 10 left the response blank, for a total of 45. This was nearly three times the number of either Options 1 or 2. Of these 45 respondents, 30 of them provided comments on why they preferred Option 3. More than half -17 respondents - indicated that the Community Services Focus could provide more space specifically for the Lansdowne Children’s Centre or a children’s treatment centre. The remaining respondents mentioned that more community services were needed in Brantford.

Comments regarding new space for the Lansdowne Children’s Centre (LCC) are highlighted because this specific use was particularly identified 31 times overall (17% or 1 in 6 respondents) as the reason for selecting Option 3. This response level, combined with nearly 19%, or approximately 1 in 5 respondents identifying that they did not reside in Brantford, raises the concern that the results of the survey may have been skewed by a concentrated effort by proponents of the LCC and respondents who were not residents of Brantford. Of the 31 times the LCC was cited in the Option comments, a total of 13 citations were made by non-residents (approximately 42%).

### **3. Conclusions on Online Survey Results And Comments (January 14, 2019)**

Given the above overall voting results and a review and analysis of the comments received from the Online Survey, we arrived at the following conclusions and recommendations:

- Based on the Table 6 results, Option 1: Outdoor Events and Festival Focus garnered the largest number of “most preferred” votes (217 votes, or approximately 40%) while Option 3: Community Services Focus was second in voting (185 votes, or

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approximately 34%) and Option 2: Culture and Community Focus was third (129 votes, or approximately 24%) We believe that the very different result of voting for Option 3 between the online survey and Public Open House #2, where Option 3 overwhelmingly received the highest number of “least preferred” votes (35 votes vs. 14 and 4 for Options 1 and 2 respectively) may be attributed to a large number of respondents who were either not Brantford residents, or who specifically identified this Option as preferred to accommodate the needs of the Lansdowne Children’s Centre. This activity may have skewed the results of voting. Subtracting non-residents (35), brings the total “most preferred” votes (150 adjusted votes) closer to the total votes for Option 2 (129 votes – 7 non-resident = 122). Regardless, Option 3 was still second in voting even with the non-weighted and simple subtraction. **Based on the simple voting process we can conclude that Option 1 again was the “most preferred”. With respect to the results for Options 2 and 3, however, we believe that there may be a need to weight the “most preferred” voting of Brantford residents in comparison to non-residents. This is important because as noted in sections 2 a. and 2 b. above, Options 1 and 2 only had 3 and 7 non-resident votes;**

- As with the concern above regarding the potential skewing of Option 3 results, the **study team and City staff should consider whether all land uses proposed for in Options and 2 should also be weighted evenly;** and,
- There was general support for the following land uses and elements once we consider and consolidate the comments for all three Options:
  - Connectivity to and integrating of proposed Options into the surrounding community, trails, the canal and other park features;
  - Potential for large outdoor special events and venues destination with the ability to attract visitors for such events was mentioned frequently in Option 1 and also Option 2 comments;
  - Criticism of Option 1 centred around the lack of residential uses and concern of utilization of such a large park and green open space area;
  - Option 2 was predominantly selected by respondents because of its balanced approach for all the proposed uses and because it balances the potential for a large event space with the mixed uses that could introduce other forms of housing and housing affordability; a good mix/balance of uses between commercial, residential, institutional and green space;
  - Option 2 respondents generally felt that this Option would be the most sustainable for providing tax revenue to the City;
  - Option 2 respondents indicated an interest in ensuring indigenous areas and uses are considered in the design and that indigenous design be incorporated;
  - Option 3 was predominantly selected by respondents who felt that Brantford was lacking community service facilities or felt existing services had outgrown their current facilities;
  - Option 3 respondents were concerned with large park / event spaces and the potential lack of utilization while the idea of a mixed use “Main Street” that provided greater activity and social amenity were supported; and,

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- Option 3 respondents felt it could benefit from additional park space.

Based on the consolidated comments it appears that Option 1, with the tempering of park and open space uses along with “Main Street” mixed use areas, including additional institutional uses, would address the preferences expressed in the consolidated comments. Interestingly, given the range of comments and criticisms expressed, **we believe that the land use range presented in Option 2 along with additional Institutional uses with could potentially result in a hybrid of the plans, leading to a supportable Option.**

### **PART C – PUBLIC ENGAGEMENT RESULTS & POSSIBLE PREFERRED OPTION**

Having reviewed and analysed the voting preferences and comments with respect to the public engagement events of the November 28<sup>th</sup>, 2018 Public Open House #2 and the Online Survey results of January 14, 2019 we have been able to gauge preferences with respect to particular Options, as well as, identify the mix of land uses the public participants/respondents would support as a preferred plan for the brownfield area within the Mohawk Lake District Plan. From our review of public engagement results and materials, we have concluded the following:

- In both instances **Option 1 was the preferred plan, however**, the critiques of this Option and desired improvements mentioned by participants and respondents in both sessions suggest that **it requires further refinement**;
- The retention and improvement of the Museum uses was supported;
- The Parks and Open Space uses were highly desired especially with respect to supporting special events and event venues. However, there was concern as to whether the full extent of these uses proposed for Option 1 were excessive, would perhaps be underutilized and be slightly more compact to allow for other uses. It was noted that the green space in Option 2 received greater support;
- The Parks and Open Space uses were seen as a natural interface to the Canal, that could integrate proposed connections with existing trail networks, and could be part of a potential Promenade design for Greenwich Street;
- The Mixed Uses received varying support depending on the Option proposed. Public Open House #2 participants gave the Mixed Use areas either neutral or negative votes for the parcels on the north side of the study area, while the Online Survey respondents indicated a preference for Options 2 and 3 because these uses could potentially provide more housing, general activity and the creation of a “Main Street”. Furthermore, Option 1 received criticism for not including more residential uses in both public engagement forums;
- The Institutional uses, especially those proposed on the north side of the study area in Option 3 received very little support in the Public Open House, however, the respondents to the online survey selected the community services focus of Option 3 ahead of Option 2. Even if we account for potential skewing of results noted in section B.2.c. there was a feeling that existing services had outgrown their current facilities and more space for

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community services should be provided. It suggests that although we do not identify support for a large Institutional use on the north side, we do consider accommodating a more modest Institutional uses, to be appropriate on the north side;

- The Promenade Corridor indicated in Option 1 had consistent interest and support from both public open house participants and online survey respondents. We noted comments from those that preferred Options 2 and 3 that the Promenade be included in those Options as well; and,
- Numerous comments through the public engagement materials spoke to the desire to potentially connect to adjacent indigenous areas through trails and to consider indigenous design in the plan, where possible.

Taking all of these conclusions into account and factoring in the analysis of the public engagement processes, **we recommend that we move forward with a combination of Options 1 and 2, with added modest Institutional uses on the north side, provision of a mixed use “Main Street” and the introduction of a Promenade Corridor for Greenwich Street along the extent of the brownfield area.**

Sincerely,

A handwritten signature in blue ink, appearing to be 'JT', with a large loop at the end.

John Tassiopoulos MCIP, RPP  
Senior Project Manager

A handwritten signature in blue ink, appearing to be 'Valentina', written in a cursive style.

Valentina Chu  
Project Planner and Urban Designer

# MOHAWK LAKE DISTRICT PLAN: OVERALL DRAFT PREFERRED PLAN



Direct pedestrian linkage between Clarence St. S. and primary pedestrian linkage along the Canal

Primary pedestrian gateway between Downtown Brantford and the District

Create a gateway with high quality urban design, a mix of uses, and medium to medium high-density built form (4 - 8 storeys)

Enhance pedestrian interface with Canal, including recreational opportunity

Identify at least one new pedestrian crossing over the Canal and into Brownfield Site

Institutional use proposed beside large event space to transition to potential "Main Street" mixed use.

Potential realignment of Trans Canada Trail

Work with Six Nations to identify linkages

Enhance waterfront-related recreational opportunity (options will be informed by future water quality assessments)

Enhance Alfred Watts Ruins as a destination with formalized lookout points and consideration for formalized parking areas

Potential trail that connects the overall trail network to the Grand River and the Alfred Watts Ruins

Enhance Murray Street Crossing for pedestrians/cyclists

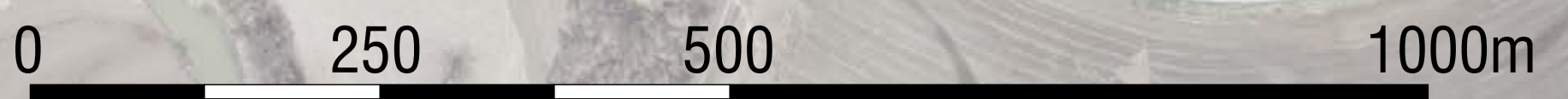
Potential lookout point towards Mohawk Lake if the landfill is decommissioned in the future

Potential new passive open space with southerly access to Mohawk Lake

**Legend**

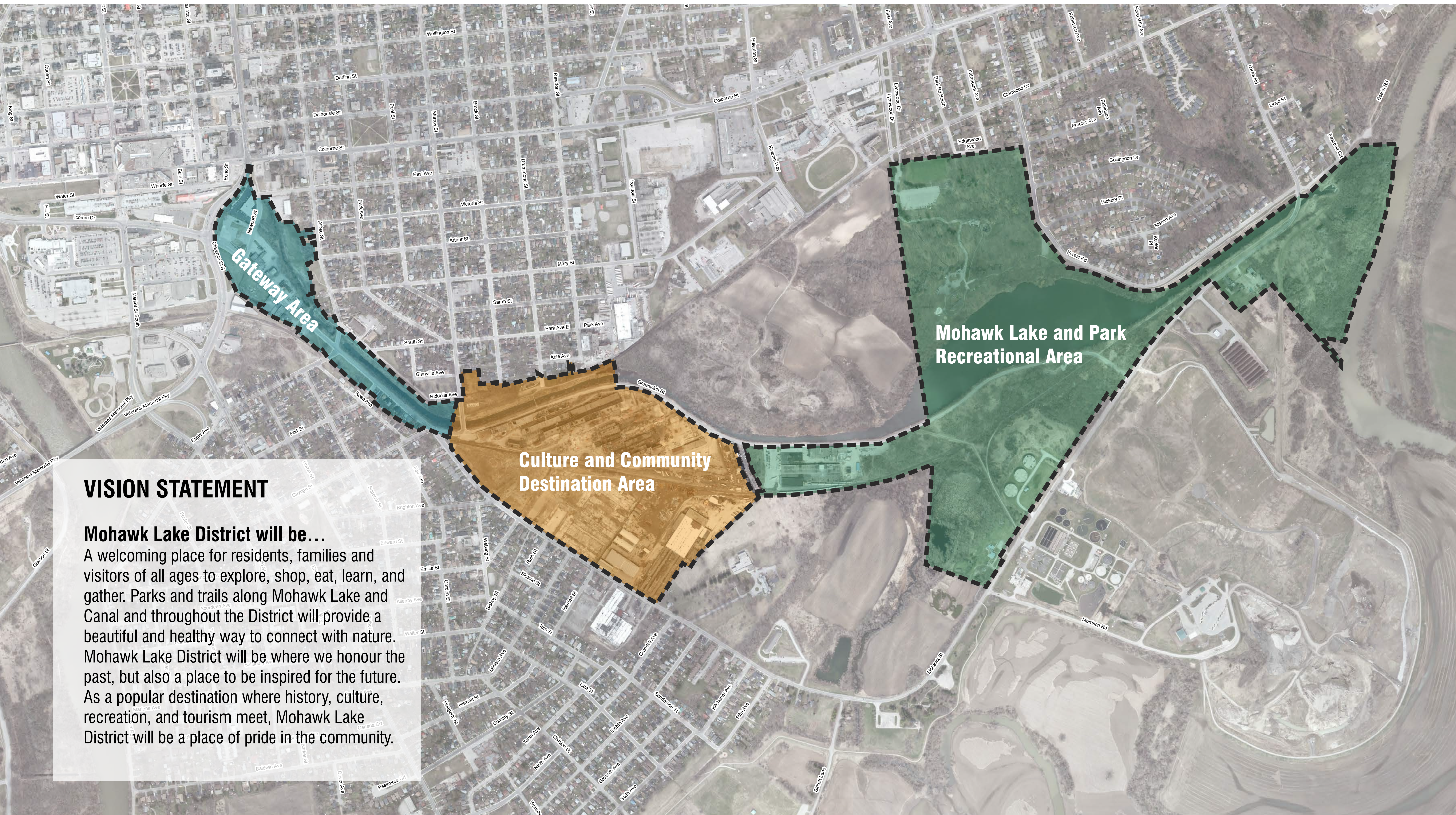
	Veterans Memorial Extension (Option 1)		Existing Parks
	Enhanced Streetscapes		Potential New Park
	Existing Trails		Enhanced Mixed Use Gateway
	Trans Canada Trail		Mixed Use Corridor
	Proposed Enhanced Trails		Mixed Commercial
	Proposed New Trails		Institutional
	Potential/Enhanced Canal or Rail Crossing		Transitional Institutional Mixed Use
	Focal Points		Museum
	Lookout Points		

Discussion with Six Nations regarding potential enhancement of existing trail linkage to Woodland Cultural Centre





# MOHAWK LAKE DISTRICT PLAN: VISION AND AREAS



## VISION STATEMENT

### Mohawk Lake District will be...

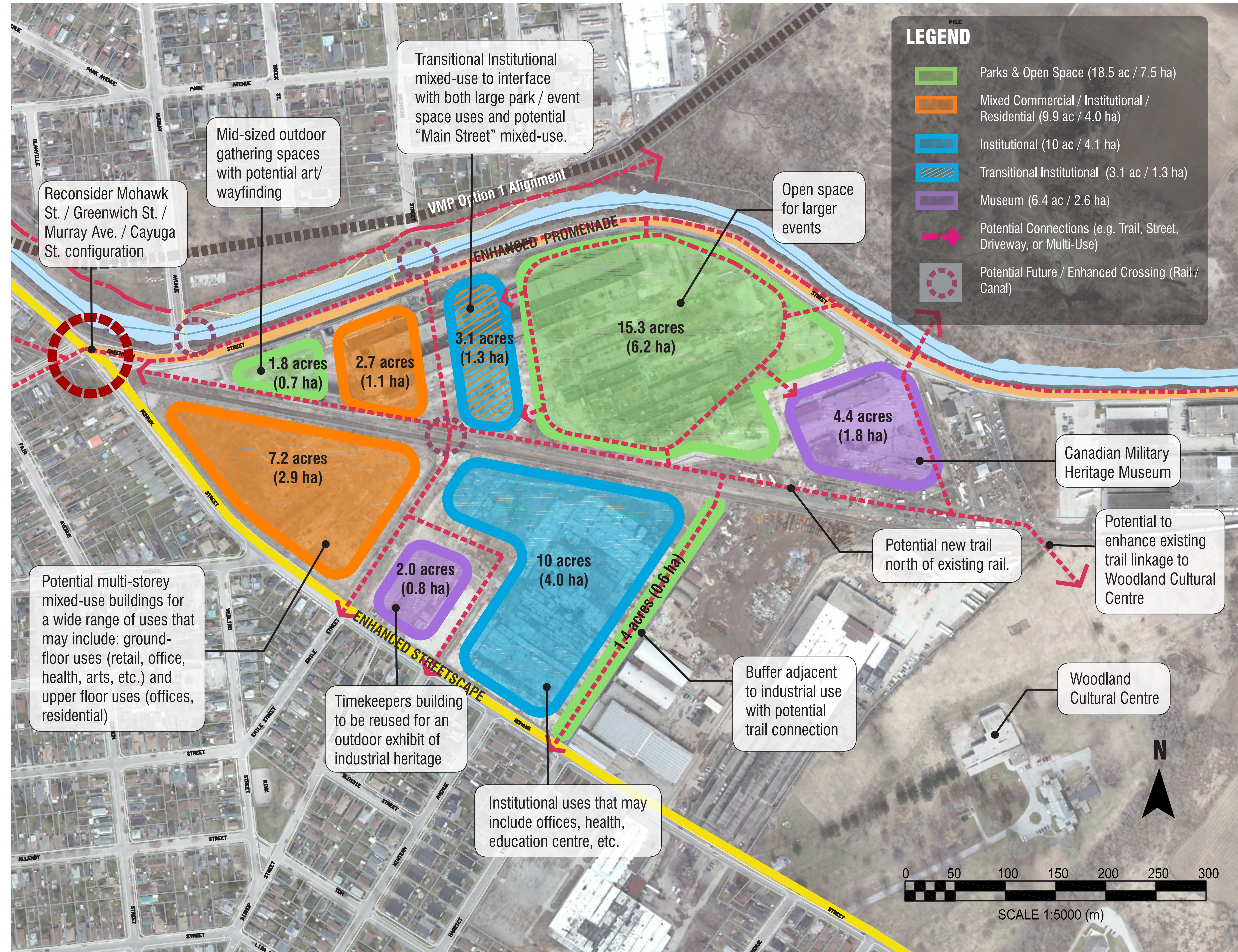
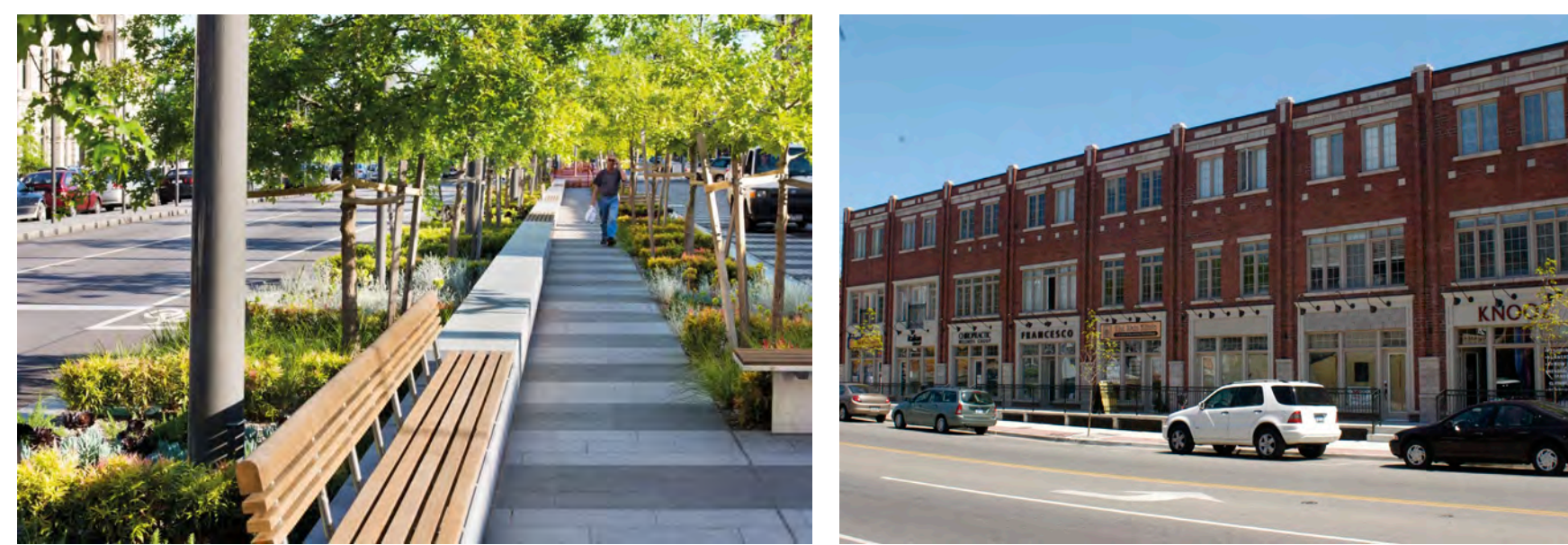
A welcoming place for residents, families and visitors of all ages to explore, shop, eat, learn, and gather. Parks and trails along Mohawk Lake and Canal and throughout the District will provide a beautiful and healthy way to connect with nature. Mohawk Lake District will be where we honour the past, but also a place to be inspired for the future. As a popular destination where history, culture, recreation, and tourism meet, Mohawk Lake District will be a place of pride in the community.





# CULTURE AND COMMUNITY DESTINATION

## AREA DRAFT PREFERRED PLAN





CITY OF BRANTFORD

# MOHAWK LAKE DISTRICT PLAN LAND USE OPTIONS EVALUATION REPORT

MAY 2019

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## APPENDICES

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## 1. INTRODUCTION & PURPOSE

The Mohawk Lake District Planning Study (MLDPS) is to provide a comprehensive land use structure and policy framework to guide future development and revitalization in the study area. The study area is made up of diverse land uses, amenities and cultural heritage features and presents many opportunities for the redevelopment and revitalization of the area. There is a unique opportunity for the City to not only create a vibrant community within an existing neighbourhood but to also integrate and reconnect the study area into the surrounding urban fabric.

One of the key deliverables of the MLDPS is to provide a preferred concept plan that will inform the development of a demonstration plan. The demonstration plan borne out of the preferred concept plan will serve as the basis for the vision, goals, and objectives that will be developed for the District Plan report. The preferred demonstration plan will also be the plan that is considered and reviewed for a series of technical studies to support the MLDPS and once finalized, will serve as the basis of the implementing planning documents such as Design Guidelines, an Official Plan Amendment and a Zoning By-law Amendment.

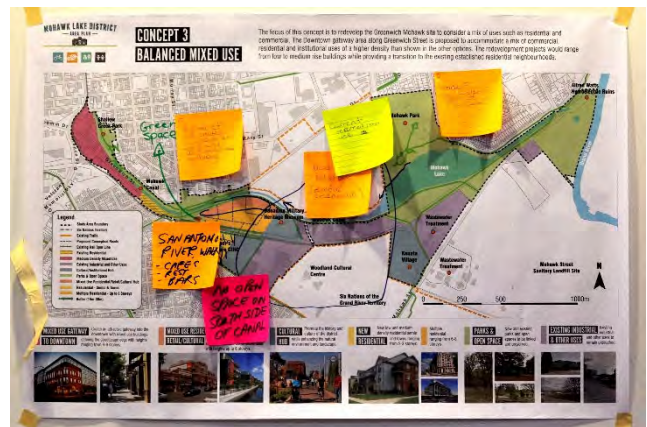
The purpose of this report is to:

- demonstrate the land use option evaluation and refinements of the initial three concept plans for the District Plan as a whole;
- outline the iterative process that led to the concepts for the largest developable area within the Plan, the Greenwich Mohawk Brownfield site;
- provide the results of the public engagement sessions and the online survey with respect to the preferred concept plan; and,
- illustrate the resulting preferred concept plan, which is the culmination of the twelve-month process and will serve to inform the development of the demonstration plan.

## 2. PUBLIC ENGAGEMENT AND DRAFT PREFERRED LAND USE PLAN

### 2.1 Public Engagement #1 – Design Charrette (March 29, 2018)

The purpose of the Public Design Charrette #1 was to determine the goals and objectives of the community as well as over-arching development principles to guide the exploration of potential redevelopment concepts for the District. The presentation slides for this meeting are found in Appendix A. The design charrette was held on March 29, 2018 at the S.C. Johnson – T.B. Costain Community Centre, which was attended by approximately 80 residents who participated in round table discussions. Each group was tasked to list out strengths, weaknesses and opportunities within the Mohawk Lake District Plan area.



In general the comments received were positive and highlighted the values of the participants. Some of the **strengths** that were highlighted included:

- The natural and recreational parks including Mohawk Park and Mohawk Park;
- Abundance of wildlife; and
- The history and culture of the area including presence of First Nations.

Some of the **weaknesses** that were highlighted included:

- Concerns for safety in certain areas including trails;
- Awkward intersection at Greenwich Street and Mohawk Street; and
- Potential lack of connectivity to certain areas.

Some of the **opportunities** that were highlighted included:

- Enhanced trails and new connections;
- Enhanced recreational uses and access to the lake and canal;
- Introduce more naturalized areas and parks;
- Create a destination for events and festivals that are family friendly; and
- Introduce a mix of uses including employment and residential.

In addition to the above, three high level land use concepts for the overall Mohawk Lake District Plan area were prepared to further facilitate discussion (see Appendix B) and to assess public reaction to the various land use configurations developed for the study area, as detailed below:

- **Concept 1 – The Cultural Hub** – This concept proposed a principal focus on community uses and sought to enhance the natural and cultural features of the study area. This was done through linking open spaces and introducing institutional uses such as museums and cultural centres as well as the provision of light commercial uses (see Figure 1).



Figure 1: Concept 1 – The Cultural Hub



- Concept 2 – The Housing Concept** – This concept introduced new residential uses, along with parks, open spaces and cultural uses. The focus was to introduce additional residential uses into the Greenwich Mohawk Brownfield site such as semi-detached and townhouses, and to provide transition to the existing residential neighbourhoods to the south (see Figure 2).



Figure 2: Concept 2 – The Housing Concept

- Concept 3 – Balanced Mixed Use** – This concept focused on redeveloping the Greenwich Mohawk Brownfield site to consider a mix of uses such as residential and commercial. The Downtown gateway area along Greenwich Street was proposed to accommodate a mix of commercial, residential and institutional uses of a higher density than shown in other options. The redevelopment projects would range from low-rise residential uses on the south side of the Brownfield site to medium rise buildings while providing a transition to the existing established residential neighbourhoods (see Figure 3).



Figure 3: Concept 3 – Balanced Mixed Use

The design charrette participants were tasked to provide comments and feedback on the three concepts and to conclude the session with a vision statement. The recurring themes identified in the comments received included:

- Creating a destination for family friendly community events and gathering spaces (e.g. music festivals, farmers markets etc.);
- Providing a mix of uses including active frontages such as cafés and patios;
- Highlighting the history and culture of the area and connection with First Nations;
- Enhancing recreational activities (e.g. canoeing, fishing, hiking, snow shoeing etc.);
- Expanding on the amount of natural open spaces and parks;
- Considering appropriate transition between commercial and residential uses;
- Improving connections to trails and providing multi-use trails;
- Hesitation towards too much residential uses in this area;
- Higher densities suggested towards the north side of the tracks; and
- Introducing transit oriented or complete streets.

As part of this exercise, a word cloud was prepared to visually summarize what was heard from the participants at the Public Engagement #1 – Design Charrette (see Figure 4).



Figure 4: “What We Heard” Word Cloud

Using the input gathered from the participants of the Public Engagement #1 – Design Charrette, and working with City staff, the project team developed the following initial draft Vision Statement:

**“Mohawk Lake District will be...**

A welcoming place for residents and visitors of all ages to explore, shop, eat, learn, and gather. Parks and trails along Mohawk Lake and Canal and throughout the District will provide a beautiful and meaningful way to connect with nature. Mohawk Lake District will be where celebrations of the past, present, and future take place. As a popular destination for cultural heritage, recreation, and tourism, Mohawk Lake District will be a place of pride for everyone.”

### **2.3 Preparation of Land Use Options – Greenwich Mohawk Brownfield (Summer, 2018)**

Following the Public Engagement #1 – Design Charrette the project team worked closely with City staff in the Summer of 2018 to prepare the 2<sup>nd</sup> round of conceptual land use options for review by City technical staff and in preparation of the Public Engagement #2 – Open House, that was to take place in Autumn 2018. This phase of land use option concepts focused on further refinement of the MLDP’s brownfield area given that its size, general contiguousness and that it would serve as a significant area within the MLDP for redevelopment potential.

Following the comments from the design charrette in Public Engagement #1 it was determined by the study team and City staff that the participants were generally in favour of Concept 3, which displayed a more balanced mixed-use option. There was however concern that the initial concepts presented were not distinct enough from each other in terms of their land use configurations. The study team worked to address this concern in the development of the land use options for the brownfield area. During the process of addressing these comments and refining the conceptual land use options, City staff informed the study team that a 4.0 hectare (10.0 acre) area be dedicated in the study area for potential institutional use.

The 2<sup>nd</sup> round of concepts took into consideration the input gathered from the Public Engagement #1 – Design Charrette, addressed the concern of more distinct land use mixes and configurations between the options and included the 4.0 hectare (10.0 acre) institutional use. In all the concepts developed for the brownfield area, the institutional use was located on the south side of the rail because it would provide a transition and break between the proposed residential and park space uses to the west. Its positioning could also provide as an additional transition to buffer from the existing industrial uses to the east. In addition, it allowed the larger north portion free for the development of varied land use configurations.

The land use concepts developed were comprised of three options, as follows:

- Option 1 – Outdoor Events and Festival Focus** – This concept focused on creating a cultural / festival hub or destination for large social/community events with an associated mix of cultural spaces, institutional and mixed-use areas with at-grade commercial/retail uses (see Figure 5).

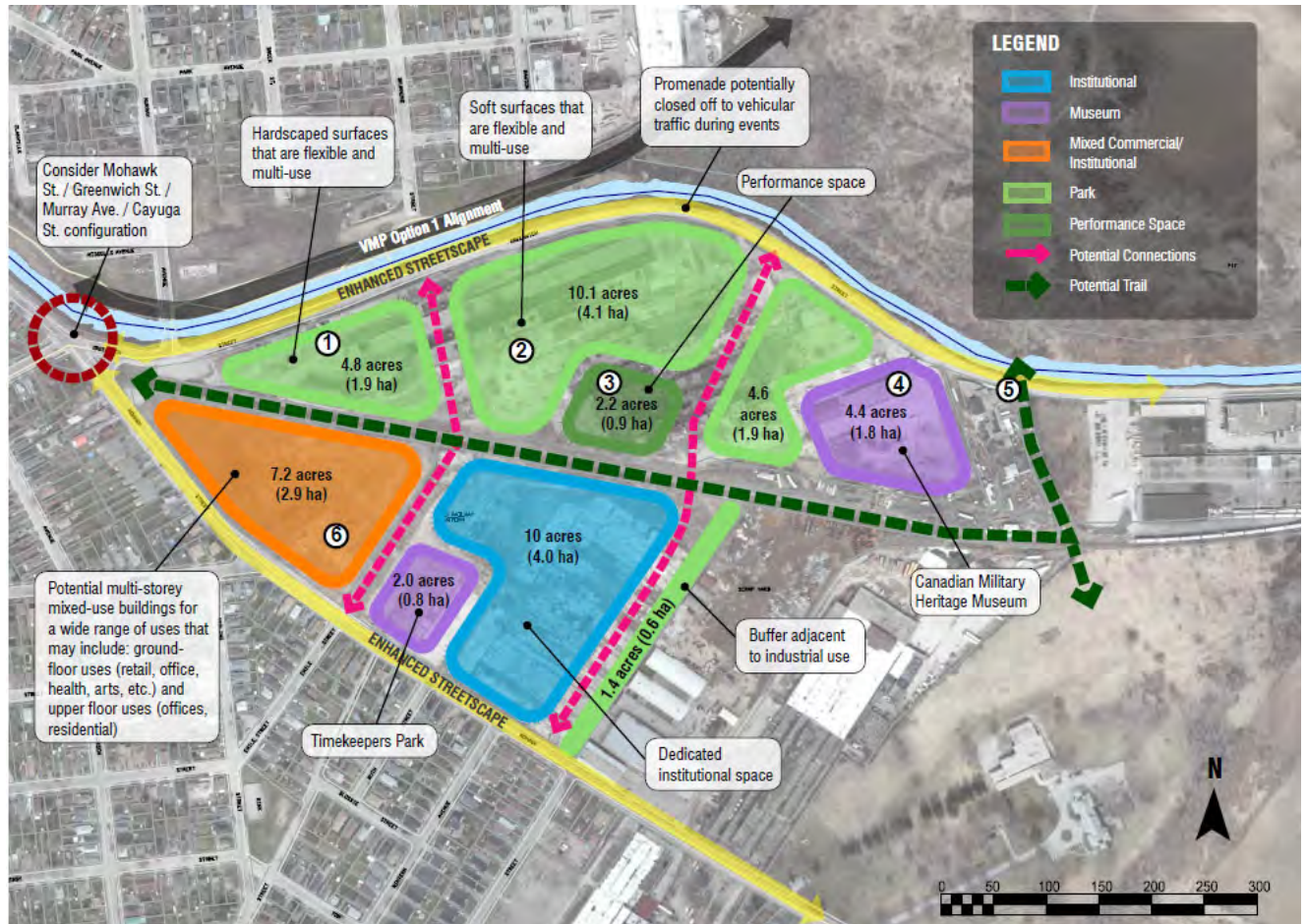


Figure 5: Option 1 – Outdoor Events and Festival Focus

- Option 2 – Culture and Community Focus** – This concept focused on creating a blend between residential and office mixed-uses with at-grade commercial retail, while still maintaining an emphasis on open space / gathering event spaces with ancillary uses (see Figure 6).



Figure 6: Option 2 – Culture and Community Focus

- Option 3 – Community Services Focus** – This concept focused on creating opportunities for more extensive institutional uses with a community focus. It also included mixed use commercial / residential development opportunities which would include a potential north/south “Main Street” connection and provide more modest park space geared to proposed and surrounding residential uses (see Figure 7).



Figure 7: Option 3 – Community Services Focus

Although the three options presented above focused on the Greenwich Mohawk Brownfield site some further refinement was made to the overall district plan in terms of identifying opportunities for connectivity both within the district and to the surrounding area as well as indicating potential future trail and road connections to the existing network (see Figure 8). Some considerations included:

- Proposing a pedestrian creating a gateway towards the west end of the study area with medium to high-density built form and a mix of uses taking advantage of its proximity to Downtown Brantford;
- Identifying potential crossings over the canal for better access and permeability;

- Enhancing waterfront-related opportunities (pending the water quality assessments);
- Identifying potential focal points to draw people into the area;
- Providing potential lookout points overlooking Mohawk Lake and the Grand River; and
- Identifying potential linkages of trails with First Nations lands.

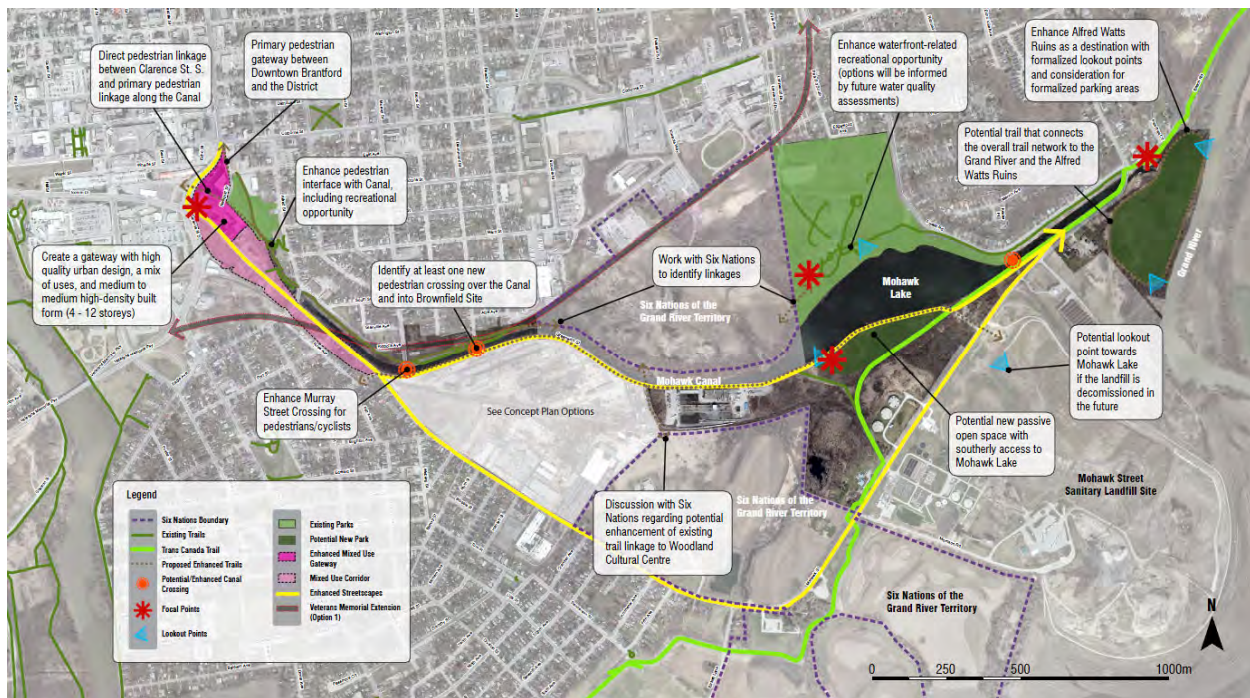


Figure 8: Overall Mohawk Lake District Plan Opportunities and Connectivity Plan

## 2.4 Staff Technical Meeting #1 – Comments and Feedback (August 16, 2018)

The three land use option concepts and supporting material was presented to the City staff technical team on August 16, 2018. The concepts had been distributed to the team prior to the meeting (see Appendix C). The internal technical staff team included representatives from Parks, Transportation, Transit, Economic Development, and Design and Construction. Minutes for the meeting are found in Appendix D. The key comments or takeaways from this session, that informed the further refinement of the concepts, included the following suggestions:

- That a trail corridor be placed on the north and south sides of the existing rail as a feasible short-term option for connectivity as it was anticipated that Ingenia Polymers use would continue for some time into the future;
- The 1.4 acre buffer in between the institutional use and the industrial use, on the south side, should not be seen as a park and that it should be clearly labelled differently;

- That Option 2, although indicating a smaller event space open space of 13.5 acres should be increased to 15 acres for enhanced event/open space and flexibility; and,
- That titles and description of each option to be refined and clarified.

## 2.5 Revised Land Use Options (October 2018)

Following the meeting with the internal technical team, the study team prepared further refinements of the proposed land use concepts in preparation of the Public Engagement #2. The study team worked closely with City staff to prepare a refined set of concepts based on the input provided from the Staff Technical Team on August 16, 2018 as well as on-going coordination. These revisions included the suggestions proposed by staff and the titles and descriptions for each option which were further revised to better reflect their proposed land use configurations and mixes.

The following are the three options that were prepared and presented to the public at the Public Engagement #2 – Open House (see Appendix E):

- **Option 1 – Outdoor Events and Festival Focus** – This option focused on creating a destination for major cultural events and festivals. The primary land uses included a large purpose-built event area with associated parks and open spaces, an institutional area, and some mixed commercial and institutional uses (see Figure 9). Changes and revisions from the previous Option 1, summer 2018 concept, included:
  - The removal of the dedicated performance space to allow for more flexibility in its potential future location in the park spaces;
  - Refinement of Option title and text description;
  - Distinguishing the buffer area between the institutional and adjacent industrial uses; and,
  - Identifying potential future trails and roads as potential connection and adding trails.





Figure 9: Option 1 – Outdoor Events and Festival Focus

- Option 2 – Culture and Community Focus** – This option focused on creating a destination for both cultural gatherings and community and commercial services. A balance of land uses that included a multi-purpose open space, several options for mixed commercial and institutional uses with potential upper-story residential, and an institutional area (see Figure 10). Changes and revisions from the previous Option 2, summer 2018 concept, included:
  - As per City staff technical team comments, the large open space was increased to 15.0 acres (6.1 ha);
  - Refinement of Option title and text description;
  - Removing smaller green space at the west edge of the brownfield site because of duplication with north side park space separated by existing rail spur;
  - Distinguishing the buffer area between the institutional and adjacent industrial uses; and,
  - Identifying potential future trails and roads as potential connection.



Figure 10: Option 2 – Culture and Community Focus

**Option 3 – Community Services Focus** – This concept focused on creating a destination primarily for community services, including large institutional areas, and options for mixed commercial and institutional uses with potential upper-storey residential. The space may be proposed in a campus format with smaller scale public gathering spaces (see Figure 11). Changes and revisions from the previous Option 3, summer 2018 concept, included:

- Refinement of Option title and text description;
- Distinguishing the buffer area between the institutional and adjacent industrial uses; and,
- Identifying potential future trails and roads as potential connection and adding trails.

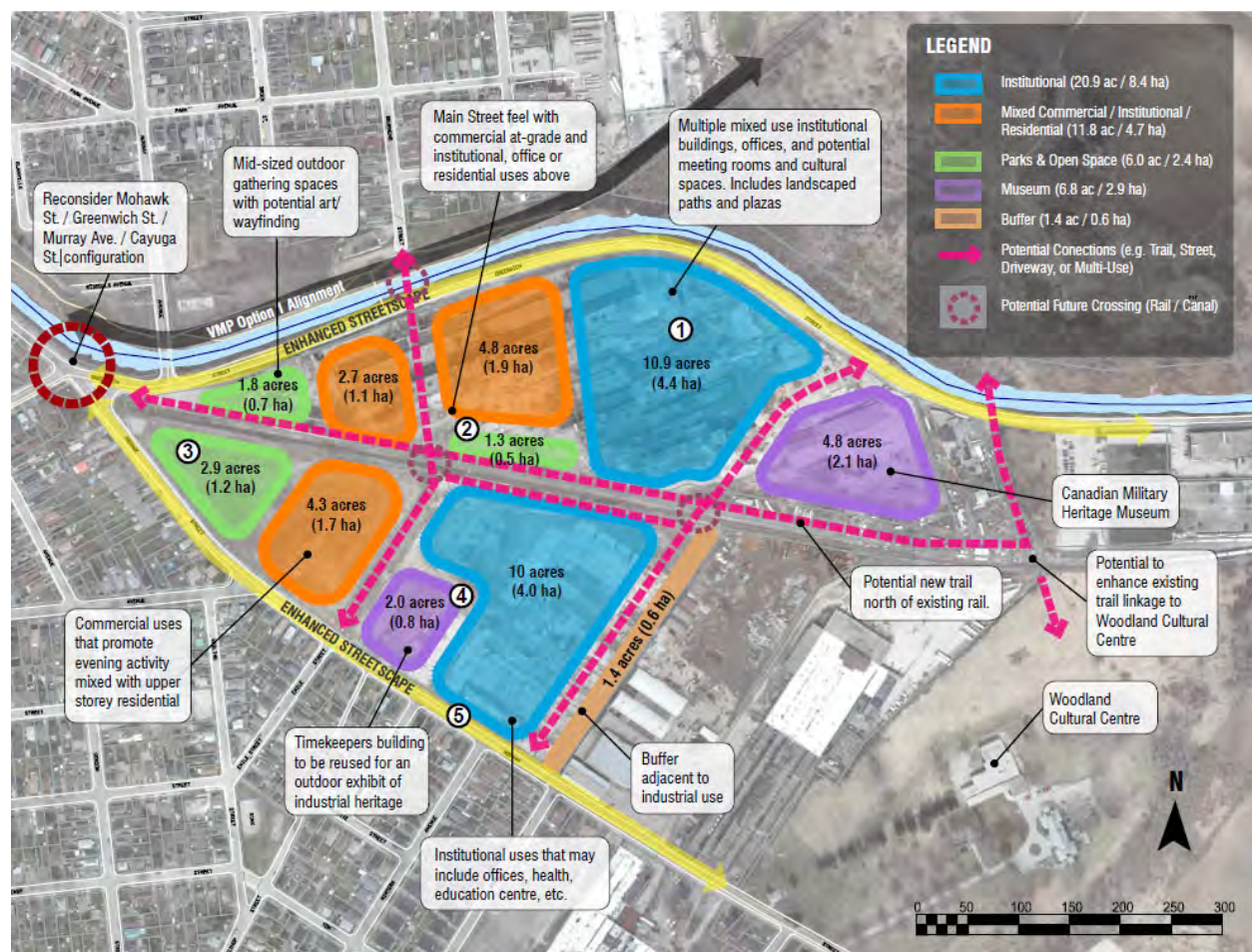


Figure 11: Option 3 – Community Service Focus

## 2.6 Public Engagement #2 – Open House (November 28, 2018)



The Public Open House Meeting #2 was held on November 28, 2018 at the S.C. Johnson – T.B. Costain Community Centre, which was attended by more than 100 people. The three conceptual plan options illustrated in section 2.5 above, were presented to those in attendance. The purpose of the Open House was to present the land use concept options and to receive comments, input and preferences based on a “dotmocracy” voting process from those in attendance. Participants were provided with a voting package upon entering the meeting and were given multiple ways in which to comment on (e.g. flip charts next to each Option, Options on tables for discussion, and in-person with the study team and City staff).



Following the presentation by the study team, outlining the ideas behind each land use option concept provided (see Appendix F for presentation), the participants were asked to vote (large dot) for their preferred option and to provide comments for their decision. In addition, they were asked to also indicate or vote (small dot) for the most preferred and least preferred land use configurations in each of the Options. The meeting resulted in 121 votes and 81 written comments which are summarized in a memo dated February 15, 2019 (see Appendix H).

Based on the input gathered during the Open House, the following conclusions and recommendations were provided by the study team:

- The preferred option appeared to be a mix between Options 1 and 2;
- Looking only at the voting results it would seem that Option 1 was the most preferred, however, after analyzing in detail the provided written comments, it appeared that the preference was for Option 2 with the addition of a promenade, commercial / retail uses, and trail connectivity, as found in Option 1; and,
- The least preferred was Option 3 and its emphasis on institutional uses.

## 2.7 Online Survey

In addition to Public Open House #2, an online survey was undertaken between December 13, 2018 and January 14, 2019. This survey reached 544 participants, with representation from all Wards in the City of Brantford as well as a few non-residents. A summary report of the online survey demonstrating the breakdown of Wards and votes can be found in Appendix G. The results and more in depth analysis of the online survey are provided in a memo dated February 15, 2019 (see Appendix H). In summary, given the overall voting results and a review and analysis of the comments received from the online survey, the following conclusions and recommendations were provided by the study team:

- Based on the simple voting process, as per the Public Open House results, Option 1 was again the “most preferred” receiving 40% of the vote;
- Surprisingly Option 3 received more votes than Option 2 but upon further analysis it was determined that this result may have been skewed by non-resident voting for institutional uses and for a particular institutional use that was identified specifically in online responses;
- It was suggested that results for Options 2 and 3 may need to be weighted based on the “most preferred” voting of Brantford residents in comparison to non-residents, or whether all land use types should be weighted evenly;
- Upon closer review of individual comments, it was determined that although Option 1 received the most votes most of the negative comments for that option revolved around lack of residential uses and potential for underutilized large park space;
- Respondents who preferred Options 2 and 3 liked the mixed-use blocks proposed and were supportive of the “Main Street” concept in those options, however, Option 3 supporters indicated need for more community facilities; and,
- Based on the consolidated comments it appears Option 1 with further refinement of park and open space uses along with “Main Street” mixed use areas, and added institutional uses, would address the preferences expressed in the overall online survey comments.

As per the results of Public Engagement #2 it appeared that a hybrid version of Option 2 that included additional institutional uses could result in a more supportable option overall.

## 2.8 Draft Preferred Plan (March 2019)

Having reviewed and analyzed the voting preferences and comments with respect to the public engagement events of the November 28<sup>th</sup>, 2018 Public Open House and the Online Survey results of January 14, 2019, the study team was able to gauge preferences with respect to particular options and identify the mix of land uses the public participants/respondents would support as a preferred plan for the brownfield area within the Mohawk Lake District Plan.

The Vision Statement was also modified generally to address comments heard in the Public Engagement #2 which included the notion of achieving the vision sooner than 20 years and adding more descriptive concepts such “inspiration”, “future”, “honouring the past”, and “a place for families.” These additions did not alter the original the vision of the original statement but rather further refined the statement to ensure a clearer and more inclusive vision, resulting in the following:

**“Mohawk Lake District will be...**

A welcoming place for residents, families and visitors of all ages to explore, shop, eat, learn, and gather. Parks and trails along Mohawk Lake and Canal and throughout the District will provide a beautiful and healthy way to connect with nature. Mohawk Lake District will be where we honour the past, but also a place to be inspired for the future. As a popular destination where history, culture, recreation, and tourism meet, Mohawk Lake District will be a place of pride in the community.”

Upon discussions with City staff regarding the conclusions of the Public Open House #2 and the Online Survey memo it was determined that the draft preferred plan, for the brownfield area, to be put forward to both the City staff Technical Team, the Working Group and ultimately presented to City Council should be comprised of the following:

- a combination of concept Options 1 and 2;
- added modest Institutional uses on the north side of the brownfield area to address additional institutional need;
- reduction of open space to address potential utilizations and consider buffering of potential event space noise;
- provision of a mixed use “Main Street” in the plan;
- and the introduction of a Promenade Corridor for Greenwich Street along the extent of the brownfield area.

Having determined the land use configuration and preferred land uses, the study team updated and refined the overall draft MLDP (Figure 12) and integrated the draft preferred plan concept for the brownfield area into the plan.

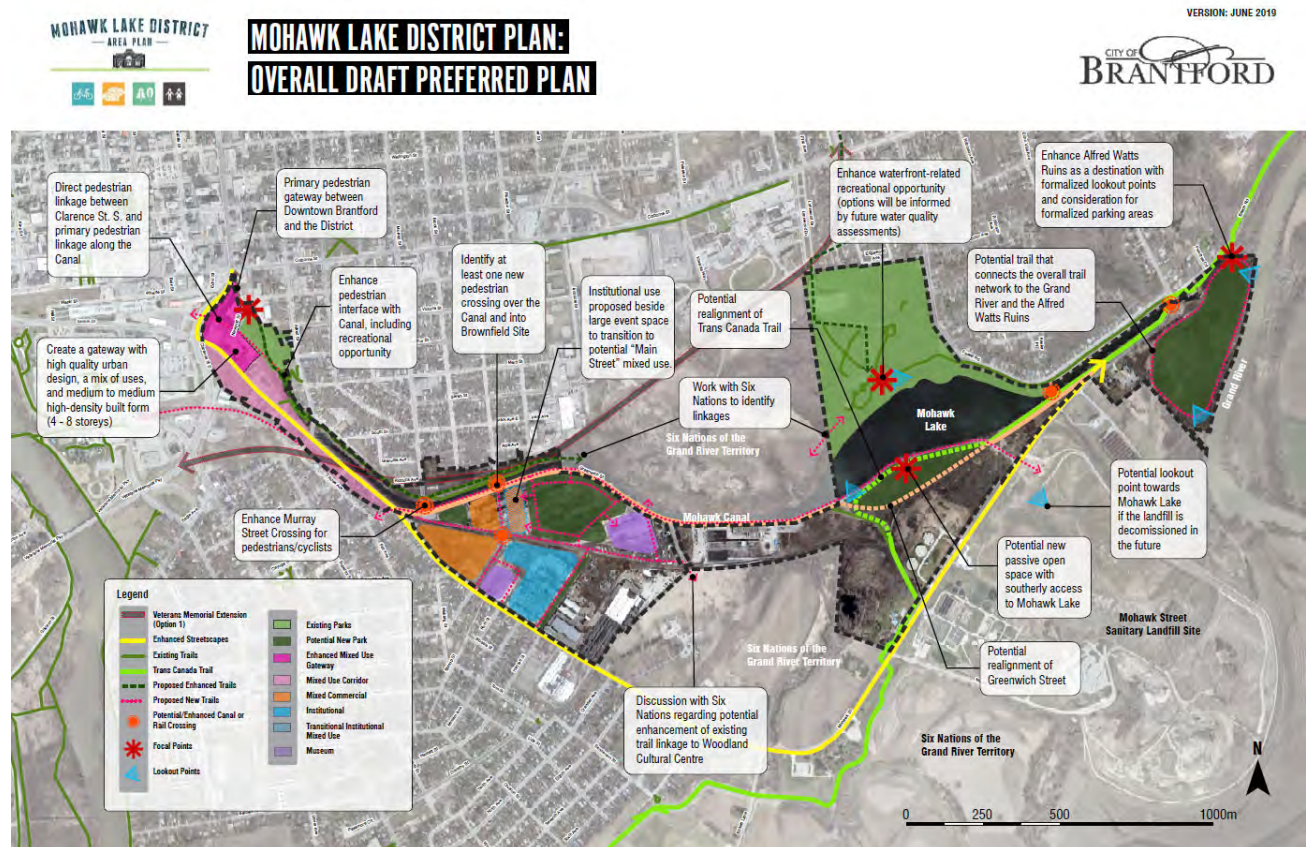


Figure 12: Mohawk Lake District Draft Preferred Plan

The draft preferred plan for the Greenwich Mohawk brownfield area (Figure 13) was developed and informed by the results of the public engagement sessions and the online survey as well as comments from City staff and the technical team. It is also informed by best practices in planning and urban design. The illustrated draft preferred plan includes the following:

- A variety and range of land use types that encourages activity within and connectivity to adjacent existing uses;
- The provision of “Main Street” type mixed uses with at-grade commercial/retail uses and residential or office institutional uses above;
- Added transitional institutional mixed uses on north side of rail to address concern for more community facilities;
- Additional institutional block can provide complimentary / ancillary uses to the large open space / event space while buffering potential noise from events to the proposed “Main Street” and mixed-use residential uses;
- An enhanced Promenade boulevard along Greenwich Street and an enhanced streetscape along Mohawk Street; and,
- Multiple internal trail connections and their connection to surrounding existing trails and links to surrounding cultural amenities/facilities.

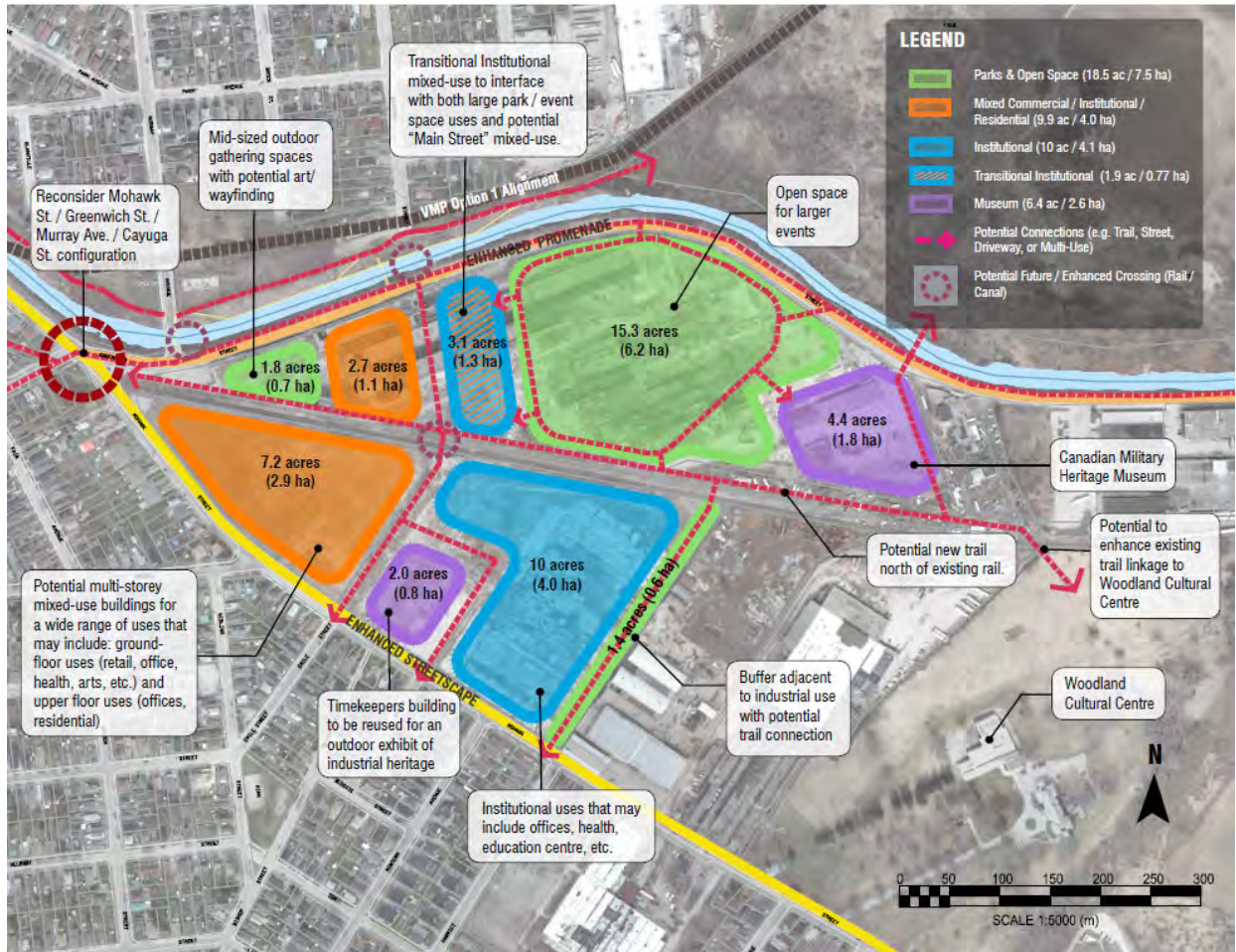


Figure 13: Mohawk Lake District Plan – Brownfield Draft Preferred Plan



## **2.9 Staff Technical Meeting #2 – Comments and Feedback (April 1, 2019)**

On April 1, 2019, the Staff Technical Team, included staff representatives from Planning Services, Parks Services, Engineering Services, Transportation and Parking Services, Facilities and Asset Management, Fleet and Transit Services, Legal and Real Estate Services, and Economic Development and Tourism Services. They were provided a brief presentation by the study team which outlined the results of the Public Engagement #2 Open House and the online survey comments along with a presentation of the draft preferred plan for the overall MLDP study area and the brownfield area. The purpose of the meeting was to gather comments and concerns as they related to the draft preferred plan through a round table discussion. Minutes for the meeting are found in Appendix J. The following are some key considerations and concerns that were provided for the draft preferred plan based on the preliminary staff technical review:

### **Transportation and Parking Services**

- Need to prepare a demonstration plan to determine draft residential target numbers in order for Transportation to better comment on any relevant right of way requirements.
- Due to high water table and the remediation program, all parking is required to be surface parking or in a structure.

### **Design and Construction**

- The promenade concepts may not be feasible or may require a larger setback from the top of canal due to slope stabilization issues. This may cut into the developable area by 20m or more.
- The promenade boardwalk feature may need to be revised to account for 5:1 slope along the canal and/or accommodate water levels for 100 year storm.
- SWM facilities within parks are not appropriate / accepted, especially within the 15.3 acre event space.

### **Mohawk Lake Water Quality Project**

- The draft water quality results are available. The project is currently undertaking the Environmental Assessment.

### **Parks Services**

- City's trail standards shall be considered.
- There is archaeological potential on the lands identified for the Alfred Watts Ruins destination.
- From the Parks and Recreation perspective, the re-alignment of the eastern portion of Greenwich Street presents as a good opportunity for the redesign of this area for enhanced recreational opportunities.

### **Economic Development and Tourism Services**

- Would like to see more First Nations engagement and involvement including positive impacts to investment work at Woodland Cultural Centre.
- Ingenia Polymers continues to invest in their site and into the spur line improvements.

### **Legal and Real Estate Services**

- There is currently private development interest within the gateway corridor on Greenwich Street.

### **Planning**

- Redevelopment plan needs to be driven as a pedestrian-oriented destination.

In addition to the above considerations and pending the results of the technical supporting studies, the types of land uses, and approximate size and location for such uses within the draft preferred plan will be further refined. The comments provided by the technical team will be incorporated, wherever possible, in the development of the demonstration plan. Along with these comments the study team will also be taking into consideration comments that may be provided by the MLDP Working Group in May 2019 and from Council, who will be presented with the draft preferred plan in June 2019.

## 3. CONCLUSION

The preceding sections provide a chronological summary of the process that led to the current proposed and illustrated draft preferred plan for both the overall Mohawk Lake District Plan and more specifically the Greenwich Mohawk Brownfield site. The draft preferred plans presented (Figures 12 and 13) are the culmination of the process outlined and will serve as the basis for the development of a demonstration plan that will be used for the preparation of the technical support studies and planning implementation documents. This demonstration plan, once developed and finalized, will also serve as the base plan for the development of a simple massing model that will illustrate ideas about built form relationships, heights, and configurations as well as relationship with respect to park spaces.

### 3.1 Next Steps

As of the preparation of this report, the draft preferred plan had not been commented upon by the Mohawk Lake District Plan Working Group, which will take place in early May 2019. Any comments provided by the Working Group will be considered following the presentation to Council and in preparation of the demonstration plan.

The draft preferred plan, along with the steps and process leading to its development, will be presented to Council in June 2019. Following this presentation, and upon Council endorsement/direction, the study team will begin preparation of a demonstration plan for the Greenwich Mohawk Brownfield site. The demonstration plan will further refine the preferred concept plan to illustrate the potential block pattern, road network (pedestrian and vehicular connectivity), and park and open space locations, and will further refine the land use composition of the Mohawk Lake District Plan. This demonstration plan will then serve as the basis for the preparation of support studies and the development of a general massing plan to serve as a basic visual representation of what is envisioned for this study area.



## Notices



## Ohsweken Man Arrested for Having a Loaded Firearm in a Vehicle

While investigating a robbery that occurred earlier in the night at a Smoke Shop on Fifth Line Road, Six Nations Police spotted a vehicle parked at a Smoke Shop on Sixth Line Road on Friday May 3rd, 2019. A male and female exited the vehicle as police approached identifying themselves as security at the business and had been there all night. Police spotted

a pump action 12-gauge shotgun with a wooden stock in plain view near the passenger side of the vehicle. Upon investigation, police determined that the gun was loaded with three 12-gauge shotgun shells. Police seized the firearm and arrested the occupants of the car. Police have charged Larry Longboat Jr. 39, of Ohsweken with three counts of Possession

of Firearms While Prohibited, Knowledge of Unauthorized Possession, Careless Storage of a Firearm, and Breach of Undertaking. He was held for weekend bail hearing. The 50-year-old Hamilton woman was not charged.

Please contact the Six Nations Police at 519-445-2811 or Crime Stoppers at 1-800-222-8477(TIPS).

## Women turned away from underfunded shelters: new national report

By Teresa Wright  
THE CANADIAN PRESS  
OTTAWA- Women who are victims of violence are being turned away from shelters across Canada due to a chronic lack of resources and funding, according to two new national studies, including one by the House of Commons committee on the status of women. Female victims of violence have been studied specifically to determine the scope of services and supports provided by shel-

ters and transition houses to women and children fleeing violence in Canada.

One in five shelters report they have not received funding increases in 10 years or more, a situation that is unsustainable, said Kaitlin Bardswich, communications and development co-ordinator for Women's Shelters Canada, which led one of the studies.

"Shelters are not funded adequately, they've never really been funded adequately," Bardswich said.

"They're essentially doing the same work year after year with less money, because things like rent and taxes and food costs are all increasing, but funding is not increasing."

More than 400 shelters took part in that three-year study. Responses were received from shelters in every province, as well as from facilities in rural, northern and remote communities.

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## NOTICE OF STUDY COMMENCEMENT

### Municipal Class Environmental Assessment

#### Mohawk Lake and Mohawk Canal Clean-up and Rehabilitation Project

#### Functional Master Drainage and Restoration Study



### The Project

The City of Brantford has initiated the Mohawk Lake and Mohawk Canal Clean-up and Rehabilitation Project with financial support from the Federal Government. This project will identify rehabilitation measures needed to address accumulated sediments and provide opportunities/recommendations to improve the environmental quality of Mohawk Lake and Mohawk Canal and protect and enhance its future in the community.

Mohawk Lake is located in an urban area with a drainage area of 839 hectares. The land use within the lake's drainage area is primarily residential and commercial with some industrial properties. Over time, the lake and canal's sediment and water quality have been impacted by stormwater and industrial discharges. Industrial discharges have been discontinued and clean-up efforts have been completed on brownfield lands upstream and adjacent to the canal, however, the lake and canal are still negatively impacted. In 2018, the City initiated a Characterization Study documenting the existing physical and environmental conditions of the drainage network, lake, and canal for the study area shown in Figure 1.

### Environmental Assessment (EA)

The Study is being carried out in accordance with the requirements necessary to receive federal funding and the Ontario Municipal Class Environmental Assessment (Class EA; Schedule "B"), as outlined in the Municipal Engineers Association's Municipal Class Environmental Assessment (October 2000, as amended in 2007, 2011 & 2015). This is an approved process under the Ontario Environmental Assessment Act.

The findings from the Characterization Study are expected to provide background information that will inform various components of the Class EA. Under the Class EA, the City has commenced the investigation of how to improve the environmental quality in the lake and canal by managing stormwater runoff, providing better habitat for fish and wildlife and enhanced recreational opportunities. Anticipated deliverables of interest include:

- A Subwatershed Stormwater Plan focusing on runoff (quantity/quality) from the Mohawk Lake tributary's basin aimed at understanding the current water resources of Mohawk Lake and Canal, as well as future watershed system (based on intensified land uses)

- A Class EA Report to be carried out in accordance with provincial legislative requirements
- A Mohawk Lake and Canal Master Plan defining the management and restoration activities associated with environmental protection needs and related future park use.

### Community Engagement

Engagement with the community, agencies and Indigenous groups is considered a key part of any Class EA. Several opportunities for engagement will occur throughout the Class EA. Public meetings will be held to discuss issues and opportunities, including alternative solutions, evaluation criteria, environmental impacts and mitigation measures. The dates and details of these opportunities will be advertised as the Class EA progresses. You are encouraged to provide your comments to inform Study planning.

Figure 1



To submit a comment or question, or receive additional information related to the Class EA, or have accessibility requirements to participate in this Study, please contact one of the representatives below:

Nahed Ghbn P.Eng. Senior Project Manager  
City of Brantford  
519-759-4150 ext. 5262 [NGhbn@brantford.ca](mailto:NGhbn@brantford.ca)

Ron Scheckenberger M.Eng., P.Eng. Principal Consultant  
Wood, Environment & Infrastructure Solutions  
905-335-2353 [ron.scheckenberger@woodplc.com](mailto:ron.scheckenberger@woodplc.com)

All information collected will be used in accordance with the Freedom of Information and Protection of Privacy Act, RSO, 1990, c.F.31. With the exception of personal information, all comments will become part of the public record.

All information collected will be used in accordance with the Municipal Freedom of Information and Protection of Privacy Act, RSO, 1990, s. 10(1). With the exception of personal information, all comments will become part of the public record.

# NOTICE OF PUBLIC INFORMATION CENTRE

## Municipal Class Environmental Assessment

### Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project

### Functional Master Drainage and Restoration Study



The City of Brantford has initiated the Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project with financial support from the Federal Government. This Functional Master Drainage and Restoration Study will identify rehabilitation measures needed to address accumulated sediments and provide opportunities/recommendations to improve the environmental quality of Mohawk Lake and Mohawk Canal, and protect and enhance its future in the community.

The Study is being carried out in accordance with the Ontario Municipal Class Environmental Assessment (Class EA; Schedule "B") process, as outlined in the Municipal Engineers Association's Municipal Class Environmental Assessment. This is an approved process under the Ontario Environmental Assessment Act. Under the Class EA, the City has commenced the investigation of how to improve the environmental quality in the lake and canal by managing stormwater runoff, providing better habitat for fish and wildlife and enhanced recreational opportunities.

Public Information Centres (PICs) are planned to allow the public and interested stakeholders to learn more about the

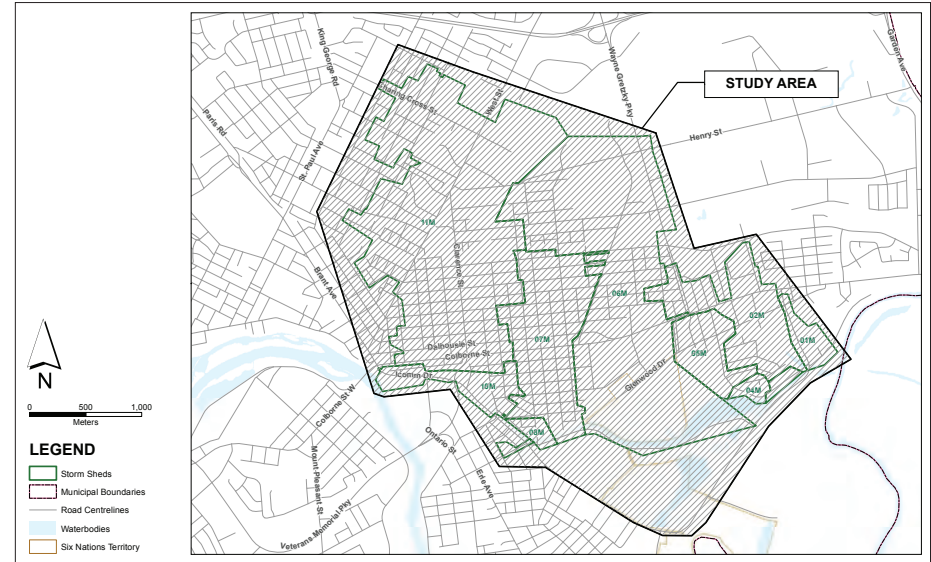
Study and provide input and comments on the preliminary investigations, the need for improvements and the assessment of planning alternatives. Representatives from the City and its consultant will be present to answer questions and discuss next steps. The first PIC is to be held as follows:

**Wednesday, June 5, 2019**  
**5:00 p.m. to 7:00 p.m.**  
**Mohawk Park Pavilion,**  
**51 Lynnwood Dr., Brantford**

Engagement with the public is considered a key part of any Class EA. To submit a comment or question, or receive additional information related to the Class EA, or if you have accessibility requirements to participate in this Study, please contact one of the representatives below:

**Nahed Ghbn P.Eng.**  
Senior Project Manager,  
City of Brantford  
519-759-4150 ext. 5262  
NGhbn@brantford.ca

**Ron Scheckenberger M.Eng., P.Eng.**  
Principal Consultant  
Wood, Environment & Infrastructure Solutions  
905-335-2353 ron.scheckenberger@woodplc.com



Information relating to the Study and consultation process will also be posted on the City of Brantford's website, [brantford.ca/MohawkLakeCanalEA](http://brantford.ca/MohawkLakeCanalEA)

All information collected will be used in accordance with the Freedom of Information and Protection of Privacy Act, RSO, 1990, c.F.31. With the exception of personal information, all comments will become part of the public record.

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The Study is being carried out in accordance with the Ontario Municipal Class Environmental Assessment (Class EA; Schedule "B") process, as outlined in the Municipal Engineers Association's Municipal Class Environmental Assessment. This is an approved process under the Ontario Environmental Assessment Act. Under the Class EA, the City has commenced the investigation of how to improve the environmental quality in the lake and canal by managing stormwater runoff, providing better habitat for fish and wildlife and enhanced recreational opportunities.

Two Public Information Centres (PICs) are planned to allow the public and interested stakeholders to learn more about the

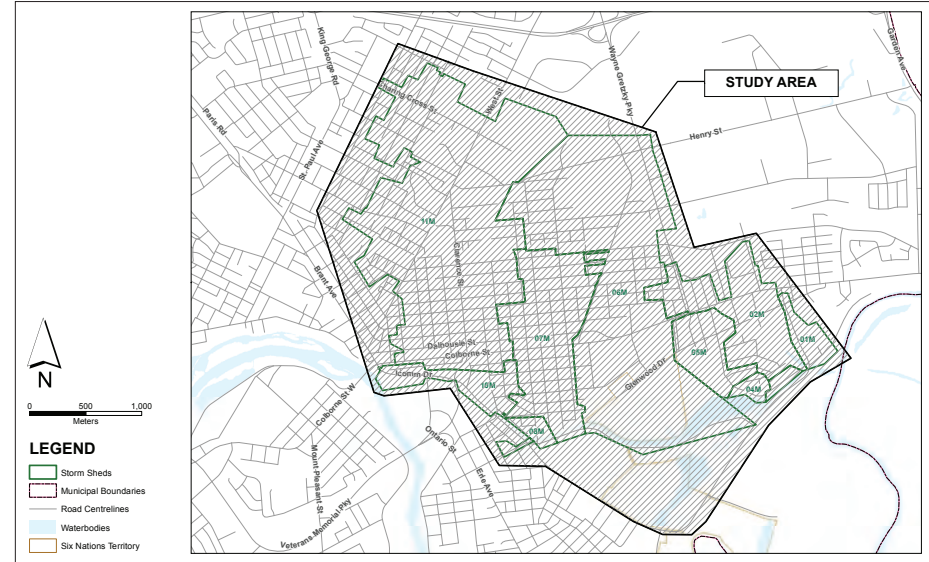
Study and provide input and comments to inform the Study. Representatives from the City and its consultant will be present to answer questions and discuss next steps. The second PIC is to be held as follows:

**Wednesday, October 23, 2019**  
**5:00 p.m. to 7:00 p.m.**  
**Mohawk Park Pavilion,**  
**51 Lynnwood Dr., Brantford**

Engagement with the public is considered a key part of any Class EA. To submit a comment or question, or receive additional information related to the Class EA, or if you have accessibility requirements to participate in this Study, please contact one of the representatives below:

**Nahed Ghbn P.Eng.**  
Senior Project Manager,  
City of Brantford  
519-759-4150 ext. 5262  
NGhbn@brantford.ca

**Ron Scheckenberger M.Eng., P.Eng.**  
Principal Consultant,  
Wood, Environment & Infrastructure Solutions  
905-335-2353 ron.scheckenberger@woodplc.com



Information relating to the Study and consultation process will also be posted on the City of Brantford's website, [brantford.ca/MohawkLakeCanalEA](http://brantford.ca/MohawkLakeCanalEA)

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**PUBLIC MEETING**

**DUFFERIN PARK MASTER PLAN**

Join us for an upcoming public meeting to review the proposed Master Plan concept for Dufferin Park:

**Tuesday, October 15, 2019**  
**5:00 p.m. to 7:00 p.m.**

**T.B. Costain/ SC Johnson Community Centre**  
**16 Morrell Street, Brantford**

Can't make it to the meeting?  
Email [parksandtrails@brantford.ca](mailto:parksandtrails@brantford.ca)  
or phone 519-759-4150 with your suggestions.



**NOTICE**

**NOTICE OF PUBLIC INFORMATION CENTRE GREYFIELDS REVITALIZATION STRATEGY**

The City of Brantford is preparing a Greyfields Revitalization Strategy to promote and assist in the redevelopment of greyfield sites. Greyfields are previously developed commercial sites that are in a state of neglect or disrepair, vacant, or underutilized.

The draft Greyfields Revitalization Strategy includes a Greyfields Community Improvement Plan (CIP) with three proposed financial incentive programs:

- The Commercial, Façade, Landscaping and Connectivity Improvement Grant to facilitate improvements to the aesthetic appeal and functionality of existing commercial and mixed use properties;
- The Mixed Use Building Improvement Grant to support the conversion of existing buildings into mixed use buildings; and
- The Tax-Increment Based Grant to promote the transformative redevelopment of greyfields into new mixed use developments.

**Please join us for a Public Information Centre**

**Wednesday, October 23, 2019 6:00 pm**  
**T.B. Costain/SC Johnson Community Centre**  
**16 Morrell Street, Brantford**

This is an opportunity for residents, business owners, and landowners to learn about Brantford's draft Greyfields Revitalization Strategy and the proposed financial incentive programs.

**For more information please contact:**

**Victoria Coates**  
Intermediate Planner, Long Range Planning  
Planning Department  
519-759-4150, ext. 5712  
[vcoates@brantford.ca](mailto:vcoates@brantford.ca)

**NOTICE**

**NOTICE OF PUBLIC INFORMATION CENTRE NORTH-EAST END FLOOD REMEDIATION STUDY**

In August 2017 and in April of 2018, the City of Brantford experienced severe storm events. This resulted in flooding in some areas of Brantford, predominantly in the North East Area.

In response to these storm events, the City has commenced the North-East End Flood Remediation Study to investigate the causes of flooding, identify any deficiencies in the infrastructure, and recommend solutions to reduce the risk of future flooding in the area.

**Public consultation**

As part of the study, the City will be hosting a Public Information Centre (PIC) to provide an opportunity for residents, property owners, tenants, and agencies in the North-East End area to meet with City staff and the consultant from the Remediation Study project team. The purpose of this PIC is to introduce the project to the community, learn about flooding, present existing stormwater infrastructure and environmental conditions, identify existing issues and opportunities and potential solutions for the identified issues.

*All information collected will be used in accordance with the Freedom of Information and Protection of Privacy Act. RSO, 1990, c.F.31. With the exception of personal information, all comments will become part of the public record.*

*All information collected will be used in accordance with the Municipal Freedom of Information and Protection of Privacy Act. RSO, 1990, s. 10(1). With the exception of personal information, all comments will become part of the public record.*

**The PIC will be held on:**

**Thursday, October 17, 2019**  
**5:00 p.m. to 7:00 p.m.**

**Branlyn Community Centre**  
**(238 Brantwood Park Road, Brantford)**

Comment sheets will also be made available for you to share your thoughts at [brantford.ca/NorthEastStudy](http://brantford.ca/NorthEastStudy). Please submit completed comment sheets by October 31, 2019.

**More information**

If you have any comments or questions regarding this study, please contact:

- |  |   |
|--|---|
| <b>Nahed Ghbn, P.Eng.</b><br>Senior Project Manager<br>City of Brantford<br>519-759-4150 ext. 5262<br><a href="mailto:NGhbn@brantford.ca">NGhbn@brantford.ca</a> | <b>Dave Maunder, P.Eng.</b><br>Aquafor Beech Limited<br>905-629-0099 ext. 290<br><a href="mailto:maunder.d@aquaforbееch.com">maunder.d@aquaforbееch.com</a> |
|--|---|

**NOTICE**



If you are a team player who is interested in meeting new people, taking on a new challenge and committed to making our city a better place to live, work and play you may be a good fit for one of the following volunteer opportunities:

- Active Transportation Sub-Committee
- Community Safety and Well-being Advisory Committee
- Brantford Heritage Committee
- Environmental and Sustainability Policy Advisory Committee



**APPLICATION FORMS AND DEADLINE**

Applications will be received until **4:30 p.m.** on **Wednesday, November 6, 2019.**

Application forms and general information is available in the City Clerk's Department, Brantford City Hall during regular business hours, on the City's website at [brantford.ca/CommitteeApplication](http://brantford.ca/CommitteeApplication).

If you have any questions about applying to sit on one of the Committees listed, please contact 519-759-4150 ext. 5731, or send an email with your questions to [Appointments@brantford.ca](mailto:Appointments@brantford.ca).



**NOTICE**

**City of Brantford Grants Program**

**Capacity Grant applications now open until November 29, 2019**

The City of Brantford is proud to work with local not-for-profit organizations to help build a stronger and more vibrant community. The City of Brantford Grants Program is part of our commitment to facilitating opportunities to enhance community wellbeing through the support of arts, culture, heritage, recreation, the environment and health and human services.

**ORGANIZATIONAL CAPACITY BUILDING GRANTS**

City of Brantford Capacity Building Grants are provided to non-profit organizations to enable non-profit leaders and organizations to develop the skills and resources they need to make a meaningful difference for the residents of our community.

- **One-time maximum funding** up to \$50,000 over three consecutive years with a maximum limit of \$20,000 per year
- **Program Deadline** – November 29

**CAPACITY GRANT INFORMATION SESSIONS:**

Information sessions will be held at the Brant Community Foundation located at 30 Brant Avenue, Brantford:

- Wednesday, October 23, 2019, at 4:00 p.m.
- Friday, October 25, 2019, at 1:00 p.m.
- Friday, November 8, 2019, at 1:00 p.m.



Administered by the Brant Community Foundation, program grants are distributed to qualifying organizations based on specific criteria. Not-for-profit applicants who are interested in learning more are encouraged to visit the City's website for more information at [brantford.ca/grants](http://brantford.ca/grants) or contact the Brant Community Foundation at 519-756-2499 or [info@brantcf.ca](mailto:info@brantcf.ca).





**Public Information Centres**

wood.

**Public Information Centre No. 1**  
Municipal Class Environmental Assessment



# Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project

**Date: June 5, 2019**

**Time: 5:00 pm – 7:00 pm**

**Location: Mohawk Park Pavilion,  
51 Lynnwood Drive, Brantford**



# Purpose and Objectives

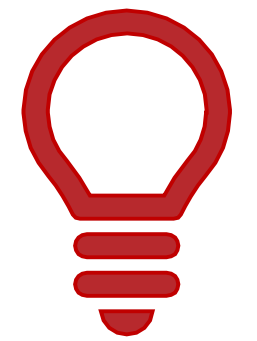
## Public Information Centre (PIC)



Introduce the Study and preliminary findings of existing conditions



Share insights from the Characterization Study



Receive input on the Draft Problem and Opportunity Statement



Brainstorm the vision for Mohawk Lake



Outline the next steps in the Study process



Hear from you! Your input is very important to us!

## Study

**The purpose of the Study is to consider ways to improve the environmental quality of Mohawk Lake and Mohawk Canal by providing:**

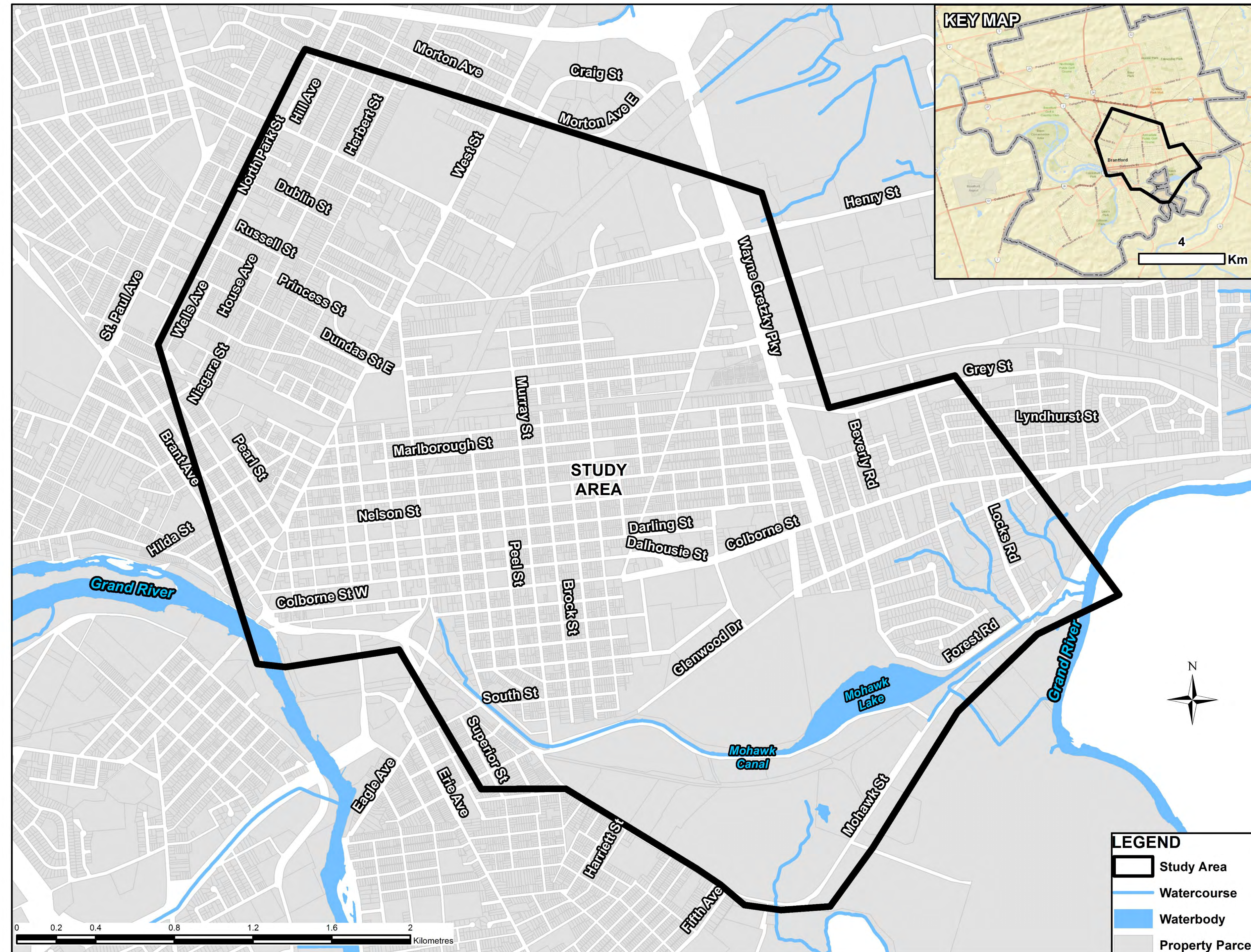
- Enhanced recreational opportunities
- Enhanced fish & wildlife habitat
- Improved water quality conditions

**Potential benefits that remediation and restoration can provide to Mohawk Lake and Mohawk Canal may include:**

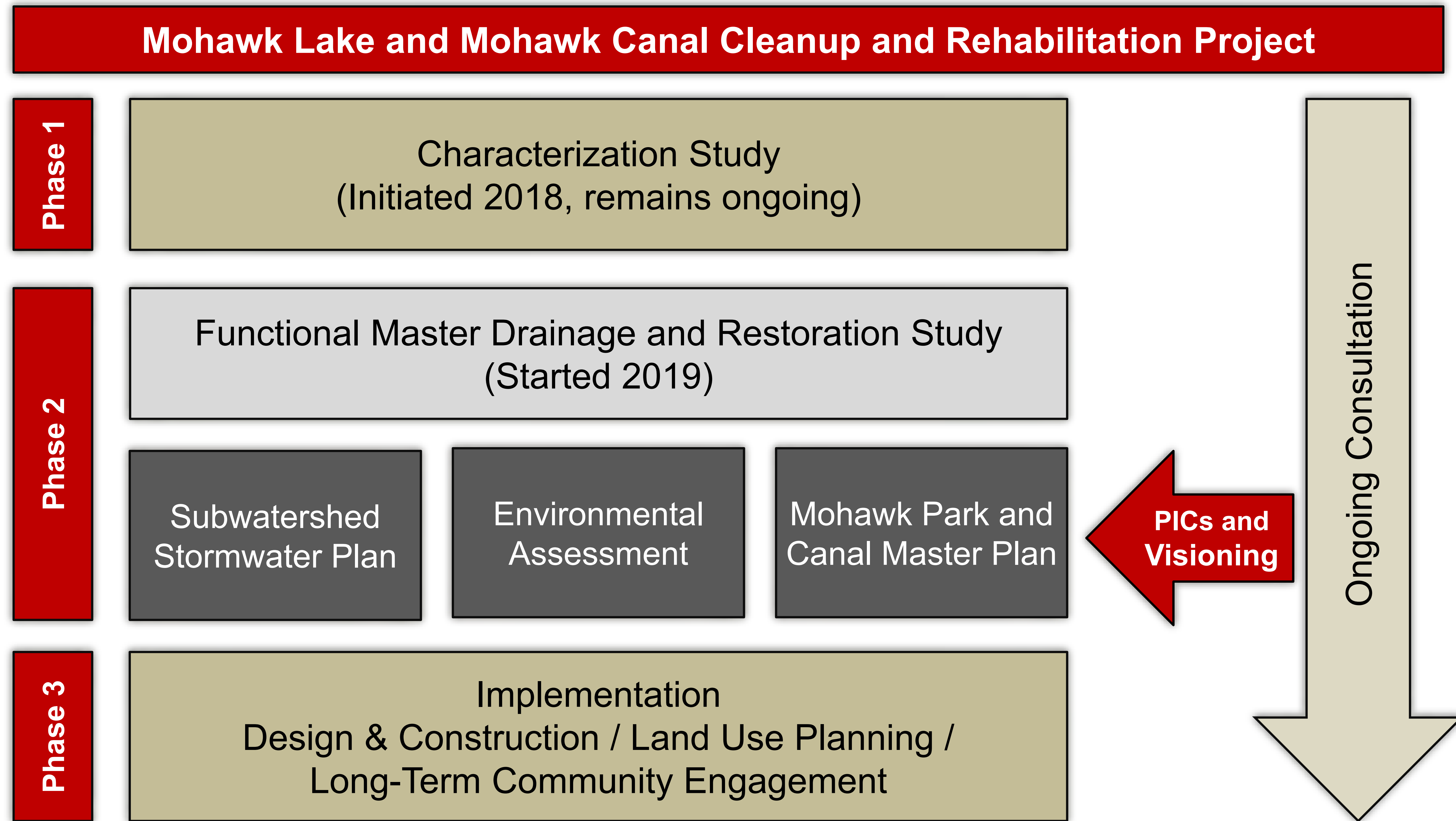
- Improved aquatic & wildlife habitat
- Protection & interpretation of cultural heritage resources
- Opportunities for water recreation

# Study Area

**Boundary of the area that drains to Mohawk Lake via East Ward Creek and the West Canal**



# Project Phases



# Subwatershed Study, EA & Master Plan

## Subwatershed Study

- Recommend actions to maintain, restore or enhance the health of the Mohawk Lake subwatershed
- Assess potential alternatives to assist in identifying a preferred subwatershed protection and restoration strategy
- Define environmental requirements such as design criteria and targets, priority phasing, mitigation measures, implementation and monitoring plans

## Environmental Assessment (EA)

- Consider all aspects of the environment: physical, natural, social, cultural and economic, including cost/benefit analyses
- Consult with the public, Indigenous groups, affected parties and review agencies throughout the process
- Define the problem and opportunity (i.e., remediation of the lake and canal offers improved environment and habitat, and recreational amenity for the community)
- Identify, develop and evaluate potential remediation options
- Document the selection of the Preferred Remedial Option(s)

## Mohawk Park and Mohawk Canal Master Plan

Master Plans (part of the Municipal Class EA framework) are long range plans that integrate infrastructure requirements for existing and future land use with environmental assessment planning principles. For the Mohawk Lake and Mohawk Canal Functional Master Drainage and Restoration Study, the Master Plan approach broadens the perspective for implementation of the preferred solution, by:

- Looking beyond the infrastructure and remediation components
- Considering the land use and park use policy direction
- Translating community visions into actions and commitments, including long-term engagement



# Historical Overview

- Mohawk Lake was constructed in the 1800's as part of a canal system to provide access for barges traveling through Brantford and to enable the barges to turn around
- In the early 1900s, the lake and the surrounding parkland provided the community with recreational opportunities for residents and continues to offer valuable natural heritage for the City
- For decades, concern has been expressed about the deteriorating environmental conditions in the lake and canal
- As early as 1950, studies were conducted to improve the flow and to address siltation issues in the lake and canal
- The *Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project* was partly initiated in response to these concerns





# Timeline

**1800s**

## Mohawk Lake and Mohawk Canal Constructed

- Part of the canal system to provide access for barges traveling through Brantford and to enable the barges to turn around

**Early 1900s**

## Recreational Area

- The lake and the surrounding parkland provided the community with recreational opportunities

**1950s**

## Early Cleanup Studies

- Conducted to improve the flow and to combat the silting problems in the lake and canal

**1970s**

## Mohawk Canal Disconnected from Grand River

- Inflow from the Grand River diverting flow to the canal was disconnected with the removal of a dam

**2015**

## Visioning for Mohawk Lake

- Visioning workshops provided the basis for a vision statement and work plans to address the clean-up

**2018**

## Characterization Study

- Study to define the current (baseline) environmental conditions to support future rehabilitation measures

**2019**

## Functional Master Plan Drainage and Restoration Study

- Study to define actions to enhance recreational opportunities, fish & wildlife habitat and improve water quality conditions



# Project Environmental Assessment Process



# Characterization Phase

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- Water quality concentration varies, with some parameters exceeding the guidelines at all monitoring stations.
- Approximately 185,000 m<sup>3</sup> of unconsolidated sediment has accumulated within Mohawk Lake and Mohawk Canal.
  - Sediment thickness within the Mohawk Canal ranged up to 1.5 m whereas sediment thickness within Mohawk Lake ranged from up to 2.4 m.
  - Sediment Quality for Mohawk Lake is generally consistent with previously completed sediment quality investigations with almost the same contamination levels.
- Confirmed the presence of high quantities of organic mud / silt and very low dissolved oxygen (DO) levels.
- Identified a number of erosion sites.
- Observed and recorded a number of significant and designated wildlife habitat, species, vegetation and fish community with the Mohawk Lake area.



# Environmental Conditions

This **Project** draws upon past studies and recent comprehensive field investigations that were undertaken to determine the environmental conditions of the Mohawk Lake and Mohawk Canal based on the following components.

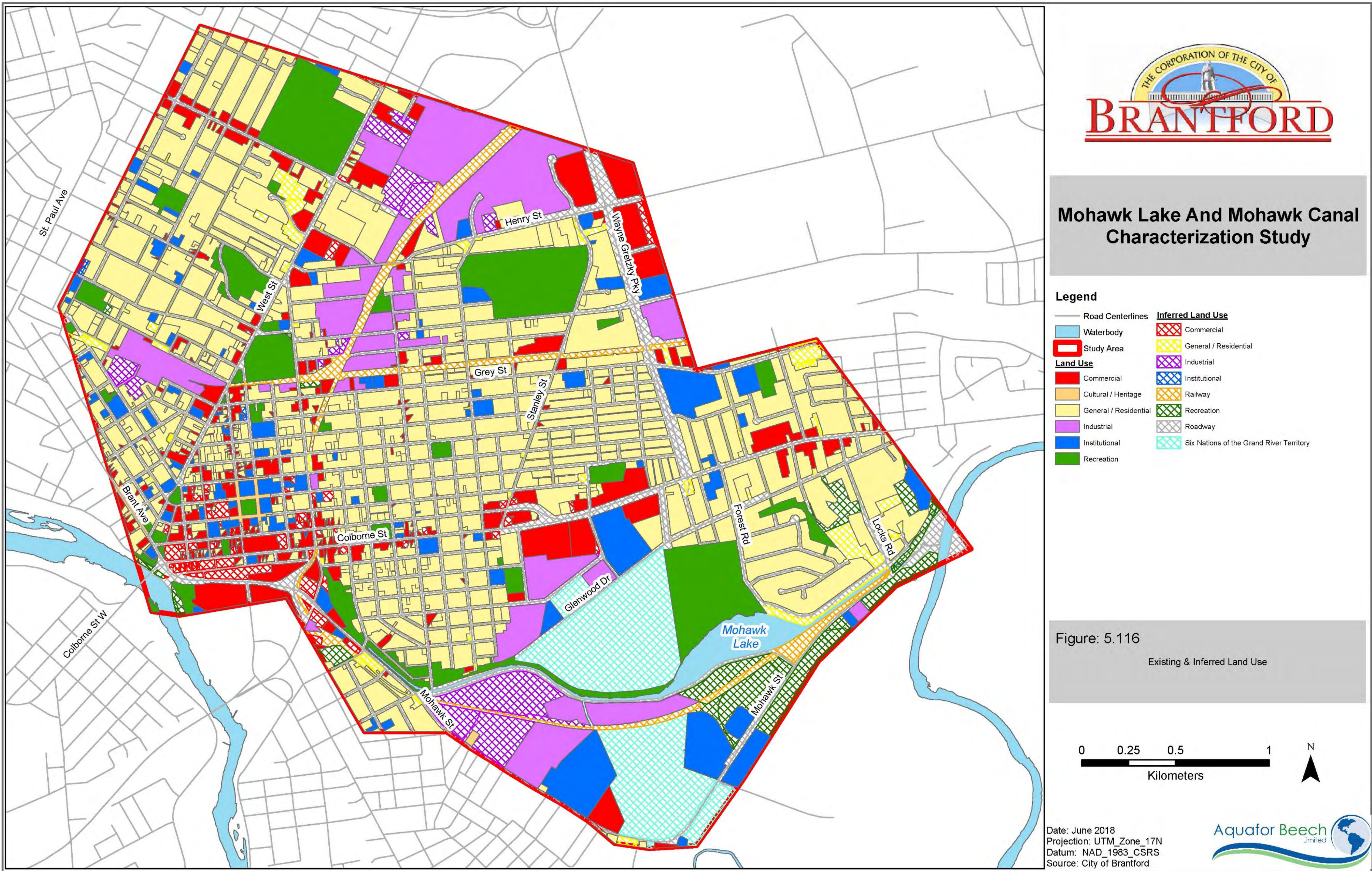


# What We Know

Category/ Discipline	General Impacts	Impact Assessment	
		Direct	Indirect
<b>Cultural Heritage &amp; Archaeology</b>	<ul style="list-style-type: none"> <li>Restrictions on development and site alterations</li> </ul>	<ul style="list-style-type: none"> <li>Restrictions on development due to designation</li> <li>Buffers required for sites of archaeological significance</li> </ul>	<ul style="list-style-type: none"> <li>Requires archaeological assessment</li> </ul>
<b>Geology, Hydrogeology &amp; Groundwater</b>	<ul style="list-style-type: none"> <li>Change in infiltration rates / groundwater recharge rates</li> <li>Mobilization of groundwater contamination</li> <li>Erosion of soils</li> </ul>	<ul style="list-style-type: none"> <li>Change in groundwater discharge (quantity &amp; quality)</li> <li>Runoff with high, and potentially contaminated suspended load</li> </ul>	<ul style="list-style-type: none"> <li>Potential ecological impacts, baseflow impacts and water quality impacts</li> </ul>
<b>Hydrology &amp; Stormwater Management</b>	<ul style="list-style-type: none"> <li>Increase / decrease in flows and volumes</li> <li>Change in water balance</li> </ul>	<ul style="list-style-type: none"> <li>Change in operation of the lake, including water levels, durations, circulation</li> <li>Impacts to watercourse erosion</li> <li>Changes to groundwater</li> </ul>	<ul style="list-style-type: none"> <li>Potential ecological impacts from changes in operation</li> </ul>
<b>Hydraulics</b>	<ul style="list-style-type: none"> <li>Flooding extent / impact to adjacent lands</li> <li>Changes in operation with more frequent storm events</li> </ul>	<ul style="list-style-type: none"> <li>Flooding extent / impact to adjacent lands</li> <li>Changes in operation with more frequent storm events</li> </ul>	<ul style="list-style-type: none"> <li>Potential ecological impacts due to changes in lake levels</li> </ul>
<b>Water Quality</b>	<ul style="list-style-type: none"> <li>Impaired water quality</li> </ul>	<ul style="list-style-type: none"> <li>Water quality impaired most significantly in West Canal</li> <li>Pollutant sources</li> </ul>	<ul style="list-style-type: none"> <li>Water quality impacted by sediment contamination</li> </ul>
<b>Sediment Quantity &amp; Quality</b>	<ul style="list-style-type: none"> <li>Significant sedimentation</li> <li>Impaired sediment quality</li> </ul>	<ul style="list-style-type: none"> <li>Sediment quality impaired most significantly in West Canal</li> <li>Potential contaminant mobilization</li> </ul>	<ul style="list-style-type: none"> <li>Dredging and channel reconfiguration influenced by contaminant mobilization</li> </ul>
<b>Natural Heritage</b>	<ul style="list-style-type: none"> <li>May involve sites with natural heritage designations</li> </ul>	<ul style="list-style-type: none"> <li>Provincially Significant Wetland</li> <li>Significant Wildlife Habitat and Rare Vegetation Community</li> <li>Environmental permits and associated restrictions</li> </ul>	<ul style="list-style-type: none"> <li>Habitat compensation</li> <li>Construction timing windows</li> </ul>



# Existing Land Uses



# Problems and Opportunities

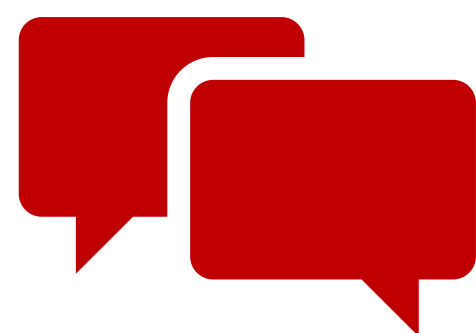
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## The Problems

Many years of industrial discharge and municipal stormwater drainage (drainage from roadways, parking areas and individual properties) have resulted in the deterioration of Mohawk Lake and Mohawk Canal. The City has made significant efforts to improve the lake including discontinuing industrial discharges as much as possible. Recent efforts for upstream brownfield remediation have eliminated any new potential occurrences of legacy contaminants to migrate from former industrial lands. However, water quality in Mohawk Lake still remains affected by incoming waterflow from stormwater runoff and the subdrainage catchment areas, and contaminated sediments that have accumulated over decades in Mohawk Lake and Mohawk Canal.

## The Opportunities

**The Class EA process provides an opportunity to develop various alternative solution(s) to enhance features and environmental conditions in Mohawk Lake and Mohawk Canal, as well as strengthen and improve the resource protection, community use and quality of life.**



*Tell us what you think about the draft Problem and Opportunity Statement!*

(Use post-it notes to write your comments here)



# Visioning Exercise

## Mohawk Lake Vision Statement (2015)

“I will be the place of vibrancy I was yesterday. I am the heart of our communities and our place for reflection, healing, and celebration. I am both Mother Earth’s refuge and your family’s natural playground. I am Mohawk Lake.”





# Future of Mohawk Lake and Mohawk Canal

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*Tell us about your vision for the future of Mohawk Lake and Mohawk Canal! Based on 2015 Mohawk Lake visioning exercise, what aspects of the 2015 visioning do you want to highlight as the most important? What are the least important? Any additional ideas to add to this vision?*

(Use post-it notes to write your comments here)

Website: <https://www.brantford.ca/en/your-government/mohawk-lake-and-mohawk-canal-cleanup-and-rehabilitation-project.aspx>



# Next Steps and Schedule

- Review comments received and prepare a PIC#1 summary report
- Create Long-Term Community Engagement Plan
- Develop alternative design concepts
- Conduct PIC#2 Fall 2019 (date will be communicated)
- Prepare and file the Project File Report, summarizing the Study
  - Publish study completion for 30 days (notice will be provided)

**Comment  
Deadline  
June 21, 2019**

**Thank you for  
your  
participation!**

## Contact Us

By Mail: **Nahed Ghbn, P.Eng.**  
Senior Project Manager  
City of Brantford

By Phone: 519-759-4150 ext. 5262

By Email: [NGhbn@brantford.ca](mailto:NGhbn@brantford.ca)

**Ron Scheckenberger, M.Eng., P.Eng.**  
Principal Consultant  
Wood Environment & Infrastructure Solutions

905-335-2353

[Ron.Scheckenberger@woodplc.com](mailto:Ron.Scheckenberger@woodplc.com)

Website: <https://www.brantford.ca/en/your-government/mohawk-lake-and-mohawk-canal-cleanup-and-rehabilitation-project.aspx>





# Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project

**wood.**

## Functional Master Drainage and Restoration Study

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Public Information Centre

June 5<sup>th</sup>, 2019  
5:00 p.m. – 7:00 p.m.

### SIGN-IN SHEET

Please Print Clearly

Name	Address	Phone #	E-mail
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# Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project

**wood.**

## Functional Master Drainage and Restoration Study

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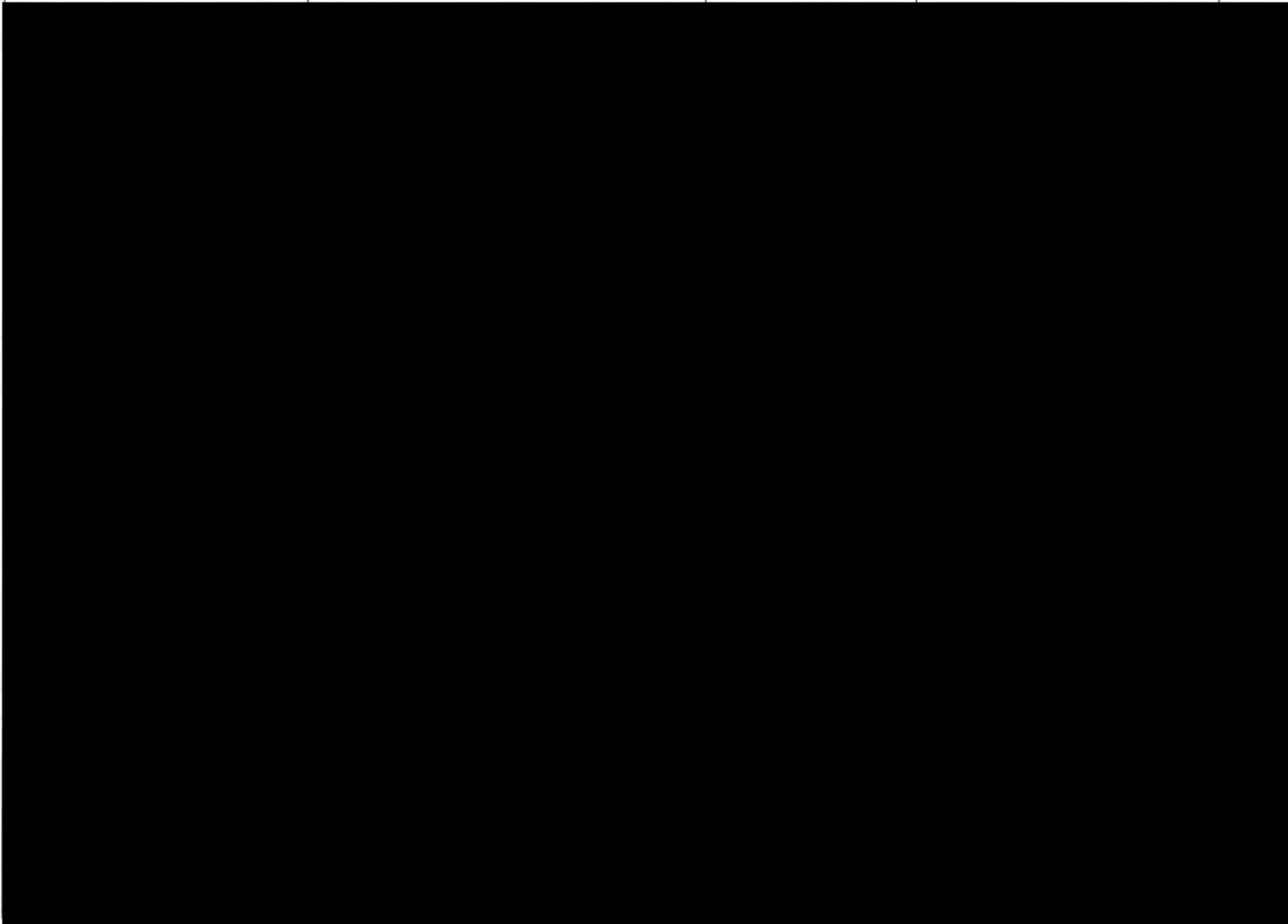
Public Information Centre

June 5<sup>th</sup>, 2019  
5:00 p.m. – 7:00 p.m.

### SIGN-IN SHEET

Please Print Clearly

Name	Address	Phone #	E-mail
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# Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project



## Functional Master Drainage and Restoration Study

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Public Information Centre

June 5<sup>th</sup>, 2019  
5:00 p.m. – 7:00 p.m.

### SIGN-IN SHEET

Please Print Clearly

Name	Address	Phone #	E-mail



**wood.**

# Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project

## Functional Master Drainage and Restoration Study

Public Information Centre

June 5<sup>th</sup>, 2019  
5:00 p.m. – 7:00 p.m.

### SIGN-IN SHEET

Please Print Clearly

Name	Address	Phone #	E-mail

wood.

**Public Information Centre No. 2**  
Municipal Class Environmental Assessment



# Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project

Date: October 23, 2019

Time: 5:00 pm – 7:00 pm

Location: Mohawk Park Pavilion,  
51 Lynnwood Drive, Brantford



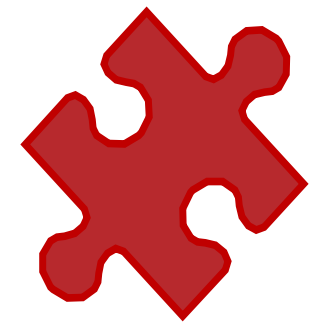
# Welcome to Public Information Centre #2

*This evening we will:*

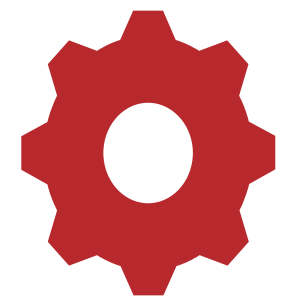
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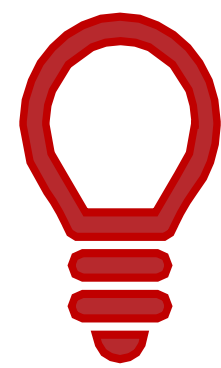
Share Study purpose, problem and opportunity statement and historical context



Confirm the community vision for Mohawk Lake



Share the evaluation criteria used to assess alternatives: stormwater management, remediation and other solutions



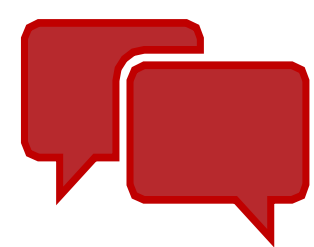
Share the evaluation results and identify preliminary preferred alternatives



Share Long-Term Community Engagement Plan



Outline the next steps in the Study process



Hear from you! Your input is very important to us!





# Problems and Opportunities

## The Problems

Years of industrial discharge and municipal stormwater runoff (drainage from roadways, parking areas and individual properties) have resulted in the degradation of Mohawk Lake and Mohawk Canal. The City has made significant efforts to improve the lake including discontinuing industrial discharges, as much as possible. Recent efforts to remediate previously developed upstream lands have removed the potential for new migration of historic contaminants. However, water quality in Mohawk Lake remains affected by stormwater runoff and drainage, and the historic accumulation of contaminated sediments in Mohawk Lake and Mohawk Canal.

## The Opportunities

The Class EA process provides an opportunity to consider various alternative solution(s) to enhance features and functions including environmental conditions in Mohawk Lake and Mohawk Canal, as well as strengthen and improve the resource protection, community use and quality of life.



# Community Needs and Vision

## Mohawk Lake District Plan Vision Statement

Mohawk Lake District will be: A welcoming place for residents, families and visitors of all ages to explore, shop, eat, learn, and gather. Parks and trails along Mohawk Lake and Mohawk Canal and throughout the District will provide a beautiful and healthy way to connect with nature. Mohawk Lake District will be where we honour the past, but also a place to be inspired for the future. As a popular destination where history, culture, recreation, and tourism meet, Mohawk Lake District will be a place of pride in the community.

### *What we've heard so far...*

#### **Potential Recreational Uses:**

- A vibrant green space for all ages and people
- An all-season lake and park for boating, fishing, canoeing, hiking, walking, picnicking, ice skating, biking
- A place to hold charity events (i.e. Dragon Boat Races), dances and concerts

#### **Potential Cultural Uses:**

- Mohawk Canal is a cultural corridor that will be a focal point for Cultural Heritage interpretation
- Educational and research opportunities for students based on the Mohawk Canal, Six Nations of the Grand River, and Brantford's industrial heritage

#### **Priorities:**

- Enhance the landscape for fish, wildlife, birds and vegetation
- Avoid significantly altering the landscape for human activities
- Improve recreational opportunities, while maintaining the natural beauty of the area



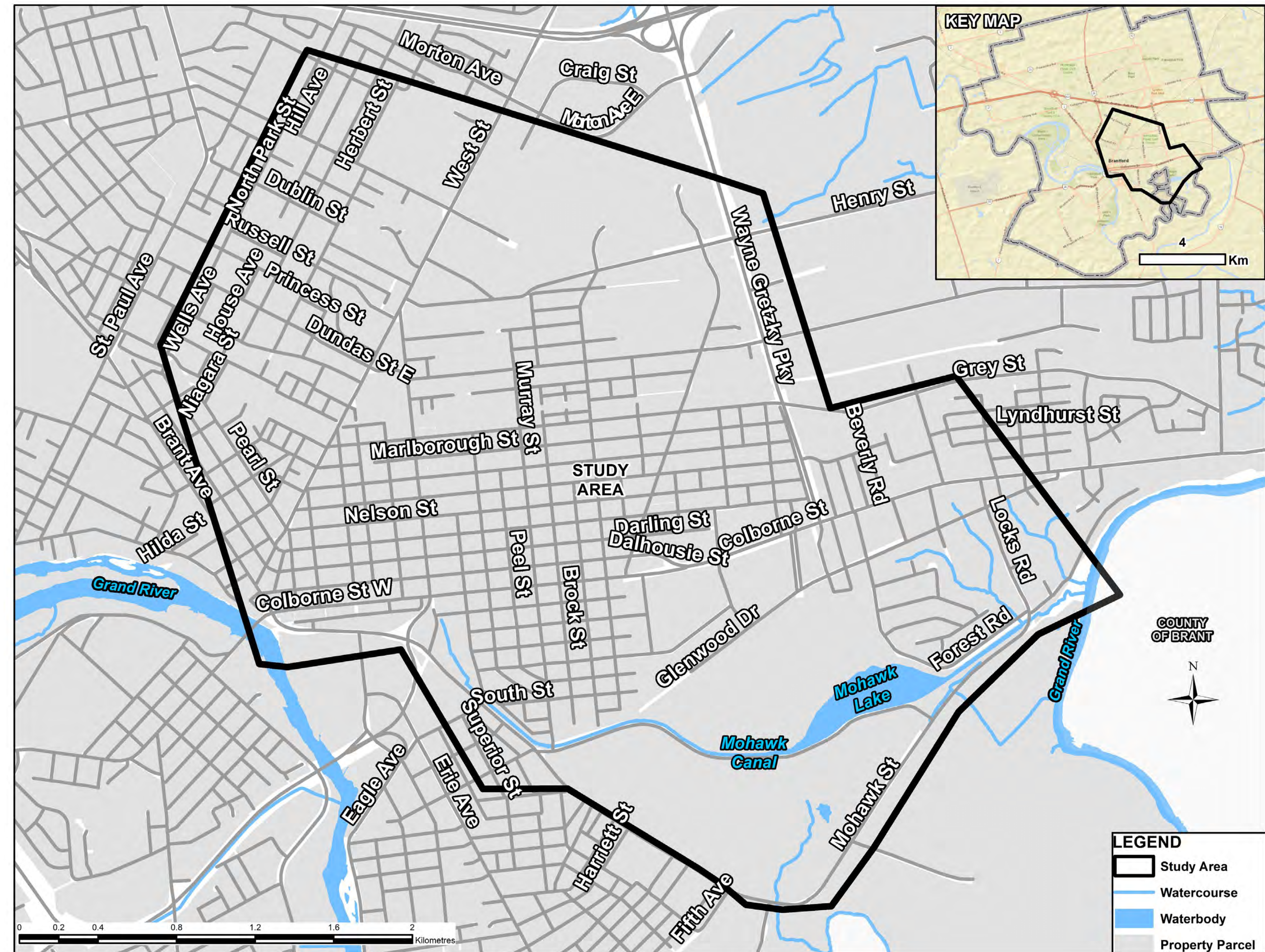
# Study Area and Purpose

The purpose of the Study is to consider ways to improve the environmental quality of Mohawk Lake and Mohawk Canal by providing:

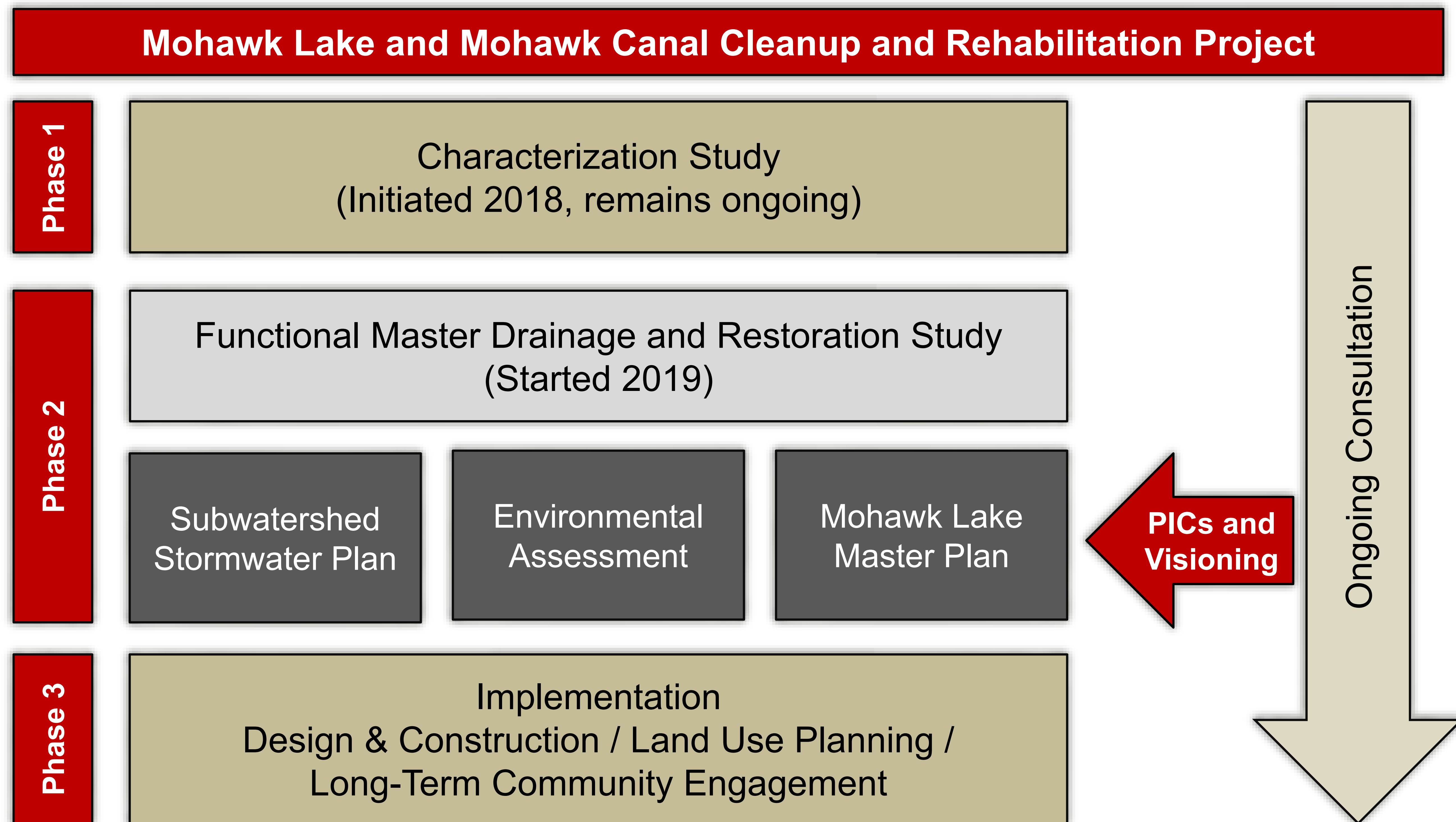
- Improved water quality conditions
- Enhanced recreational opportunities
- Enhanced fish & wildlife habitat

Potential benefits that remediation and restoration can provide to Mohawk Lake and Mohawk Canal may include:

- Improved aquatic & wildlife habitat
- Protection & interpretation of cultural heritage resources
- Opportunities for enhanced water recreation



# Project Phases



# Subwatershed Study, EA & Master Plan

## Subwatershed Study

- Recommend actions to maintain, restore or enhance the health of the Mohawk Lake subwatershed
- Assess potential alternatives to identify a preferred subwatershed protection and restoration strategy
- Define environmental requirements such as design criteria and targets, priority phasing, mitigation measures, implementation and monitoring plans

## Environmental Assessment (EA)

- Consider all aspects of the environment: physical, natural, social, cultural and economic, including cost/benefit analyses
- Consult throughout the process
- Define the problem and opportunity
- Identify, develop and evaluate alternative solutions
- Document the selection of the Preferred Remedial Option(s)

## Mohawk Lake Master Plan

Develop a long range plan that integrates infrastructure requirements for existing and future land use with environmental assessment planning principles. The process of developing the Master Plan involves:

- Looking beyond the infrastructure and remediation components
- Considering the land use and park use policy direction
- Translating community visions into actions and commitments, including long-term engagement

**Community Engagement**



# Environmental Assessment Process

## Municipal Class Environmental Assessment, Schedule B

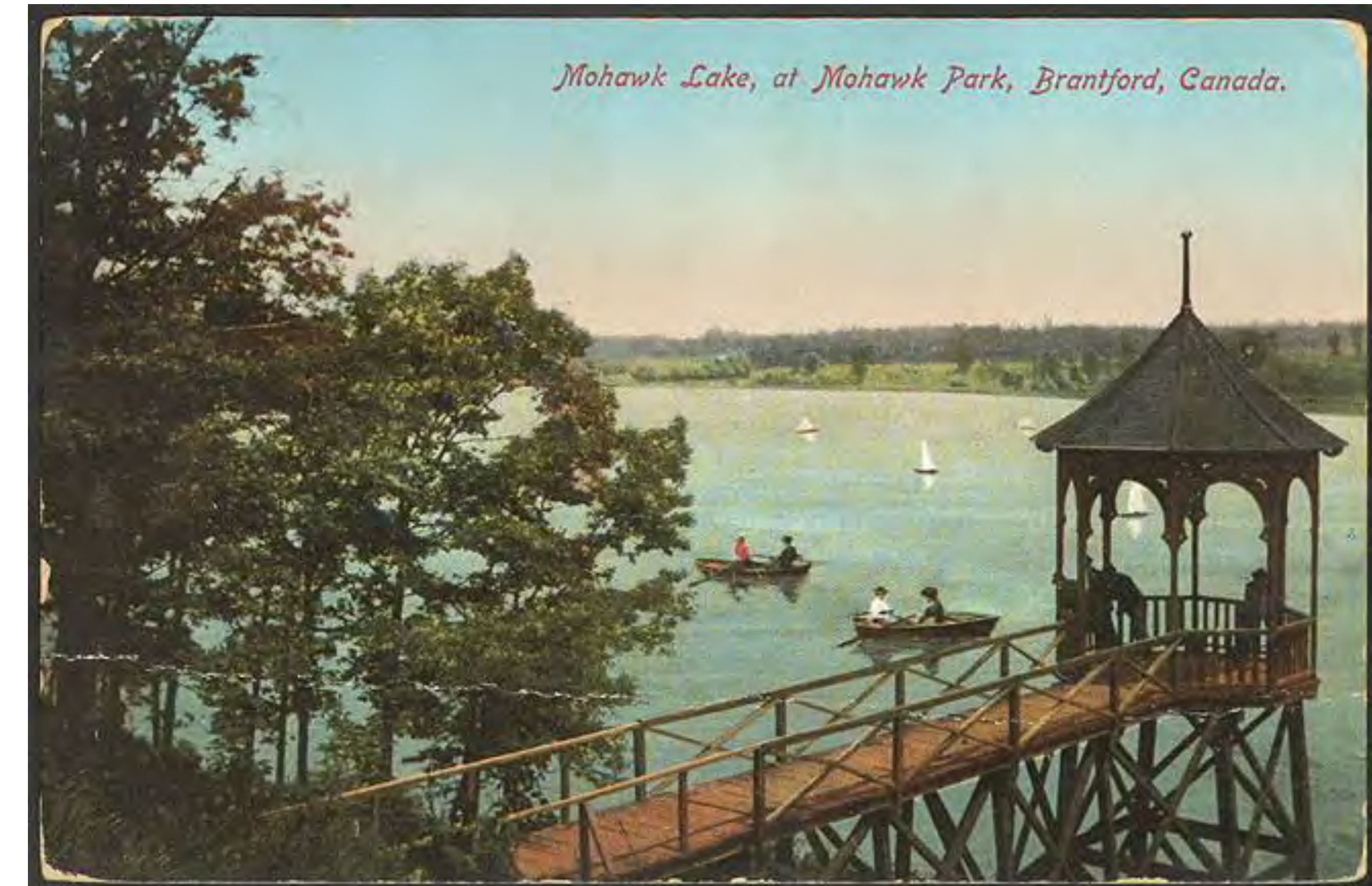


**We  
are  
here**



# Historical Overview

- Mohawk Lake was constructed in the 1800s as part of a canal system to provide access for barges traveling through Brantford and to enable the barges to turn around
- In the early 1900s, the lake and the surrounding parkland provided the community with recreational opportunities for residents and continues to offer valuable natural heritage for the City
- For decades, concern has been expressed about the deteriorating environmental conditions in the lake and canal
- As early as 1950, studies were conducted to improve the flow and to address siltation issues in the lake and canal
- The *Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project* was partly initiated in response to these concerns



# Timeline

**1800s**

## Mohawk Lake and Mohawk Canal Constructed

- Part of the canal system to provide access for barges traveling through Brantford and to enable the barges to turn around

**Early 1900s**

## Recreational Area

- The lake and the surrounding parkland provided the community with recreational opportunities

**1950s**

## Early Cleanup Studies

- Conducted to improve the flow and to combat the silting problems in the lake and canal

**1980s**

## Mohawk Canal Disconnected from Grand River

- Inflow from the Grand River diverting flow to the canal was disconnected with the removal of a dam

**2015**

## Visioning for Mohawk Lake

- Visioning workshops provided the basis for a vision statement and work plans to address the clean-up

**2019**

## Characterization Study

- Study to define the current (baseline) environmental conditions to support future rehabilitation measures

**2019 (in progress)**

## Functional Master Plan Drainage and Restoration Study

- Study to define actions to enhance recreational opportunities, fish & wildlife habitat and improve water quality conditions





# Characterization Findings

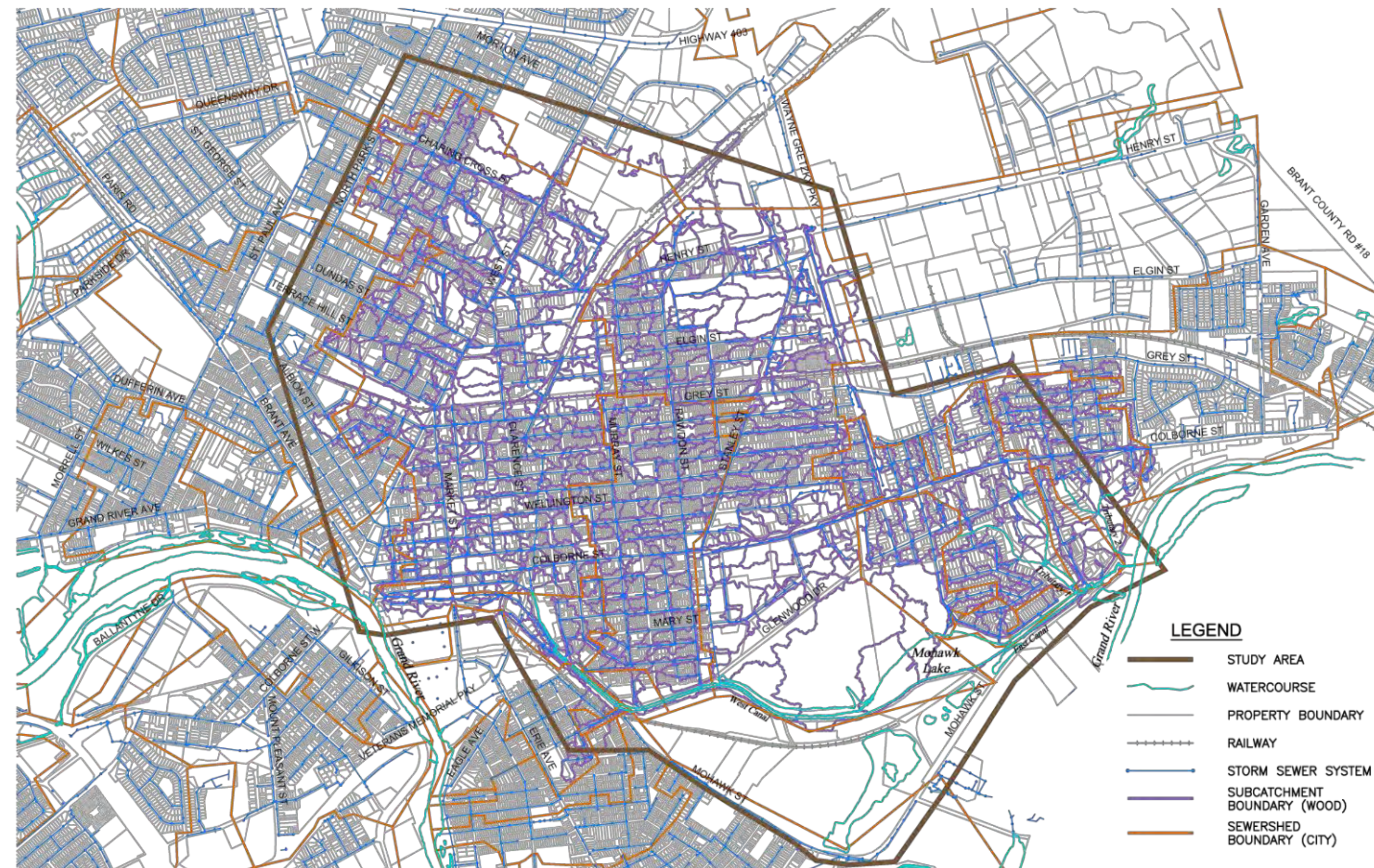
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- Water quality concentrations vary, with some parameters exceeding the guidelines at all monitoring stations
- Approximately 185,000 cubic metres (m<sup>3</sup>) of sediment has historically accumulated in the lake and canal
  - Sediment thickness in the canal ranges up to 1.5 metres and in the lake ranges from up to 2.4 metres
  - Sediment Quality for Mohawk Lake is generally consistent with previous sediment quality investigations with similar contamination levels
- Confirmed the presence of high quantities of organic mud / silt and very low dissolved oxygen (DO) levels
- Identified a number of erosion sites
- Observed and recorded a number of significant and designated wildlife habitat, species, vegetation and fish community



# Water Flow and Movement into Mohawk Lake

- Evaluated the amount of water, including peak flows and runoff volumes, to develop an understanding of the amount of water that feeds into Mohawk Lake and Mohawk Canal
- Understanding the water flow and movement has supported the assessment of alternative water management solutions



# Alternatives Overview

Three main management approaches have been identified based on the study purpose:

- Improved water quality conditions
- Enhanced recreational opportunities
- Enhanced fish & wildlife habitat

## 1. Stormwater Management Alternatives

- Source/Conveyance Control  
(Public / Private)
- End-of-pipe (Retrofits)



Stormwater Management

## 2. Mohawk Lake & Mohawk Canal Remediation Alternatives

- Sediment Removal from Lake & Canal
- Shoreline / Edge Treatment of Lake Perimeter
- Natural Channel Design of Canal



Shoreline Restoration Activities

## 3. Other Management Alternatives

- Street Sweeping
- Public Education
- Recirculation / Re-connection with Grand River



Street Sweeping

# Evaluation Criteria

## Natural Environment

- Water Quality (Chem. & Temp.)
- Water Quality
- Natural Heritage (Habitat, Wetlands and SAR)
- Fluvial Geomorphology
- Geology, Hydrogeology & Groundwater



## Economic Environment

- Capital Cost
- Contaminant Management Cost
- Maintenance Cost
- Utilities Impacts
- Property Acquisition



## Social/Cultural Environment

- Archaeology & Cultural Heritage
- Future Land Use & Growth Impacts
- Hydraulics - Flooding



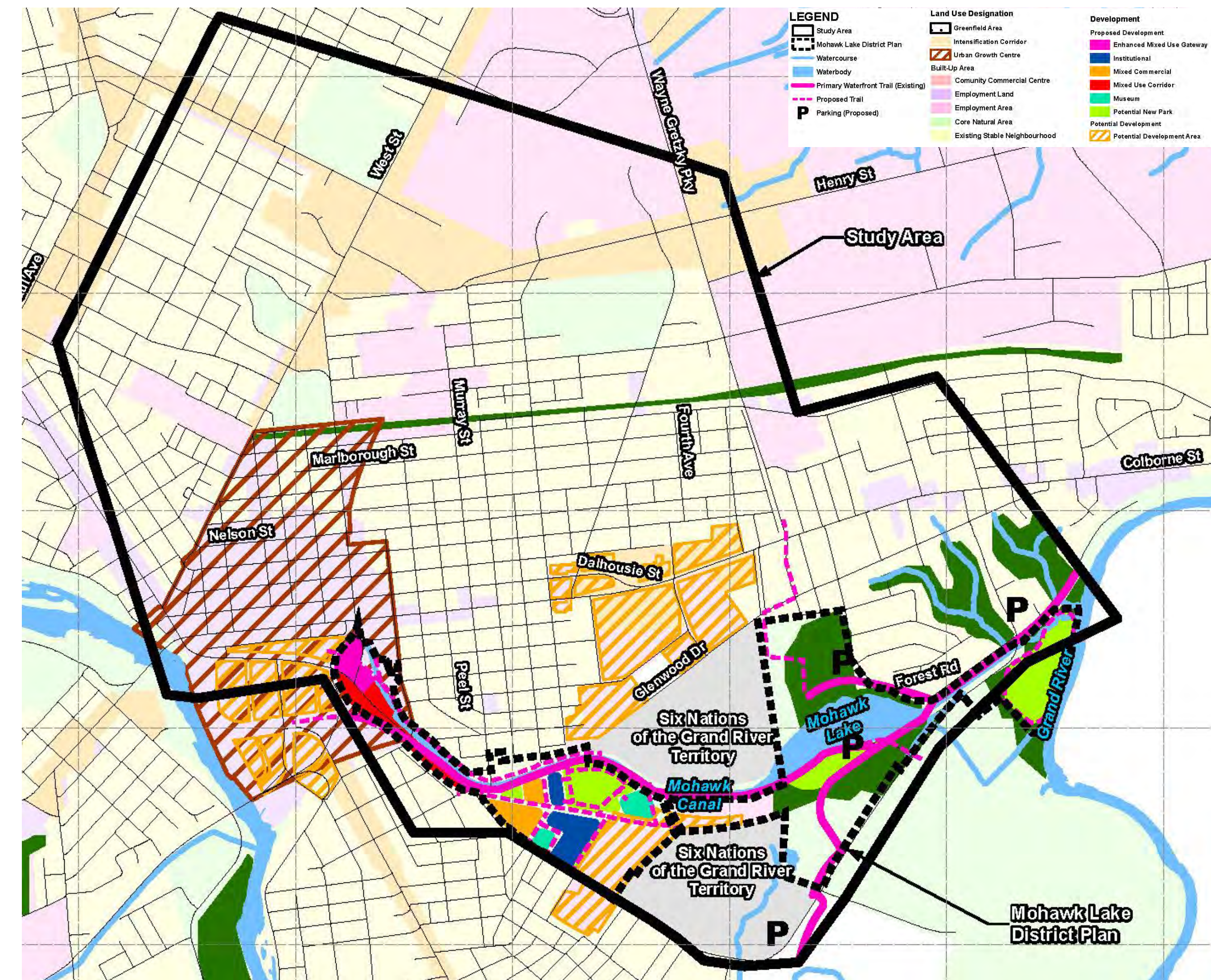
## Technical Environment

- Stormwater Management
- Hydrology
- Constructability
- Community Resilience & Sustainability



# Stormwater Management Alternatives

- Treat water at source for:
  - Redeveloping lands
  - Existing lands (incentive program)*\*Preference to filtrative vs. infiltrative*
- Treat water in Road Right-of-Ways
  - At time of road reconstruction
  - Use source / conveyance techniques
- Build new end-of-pipe treatment facilities at outfalls:
  - Oil & grit separators for smaller areas
  - Wet ponds for larger areas



Future Redevelopment Areas in Mohawk Lake Subwatershed



# Stormwater Management Alternatives Evaluation

Component	Category	Evaluation Criteria	Factor	Measure	Weight	Alternative 1: Source / Conveyance (Public Roads)	Alternative 2: Source / Conveyance (Private Redevelopment)	Alternative 3: Source (Private Incentive-based)	Alternative 4: End-of-Pipe (Retrofits)
Natural Environment	Water Quality	Water Quality & Temperature	Quality of Water for Fish and Wildlife, Recreation, or Human Use	Provincial Water Quality Objectives (PWOQ) and stream management objectives	H	Potential for recovered capacity	Potential for recovered capacity	Potential treatment	Potential treatment
	Hydrology & Stormwater Management	Water Quantity	Environmental flows for recreation or wildlife	Flow rate (cubic metres per second, m <sup>3</sup> /s)	L	Minor benefit potential	Minor benefit potential	Minor benefit potential	Minor benefit potential
	Natural Heritage	Aquatic Habitat	Improvements or impacts to habitat viability	Area of impacted habitat (square metres, m <sup>2</sup> )	H	No direct change	No direct change	No direct change	No direct change
		Wildlife Habitat	Potential effects wildlife due to changes in habitat	Area of impacted habitat (square metres, m <sup>2</sup> )	M	No direct change	No direct change	No direct change	No direct change
	Fluvial Geomorphology	Fluvial Stability / Sediment Transport	Potential adverse effect on surface water due to drawdown or flow disruption	Extent of impact	M	Negligible change	Negligible change	Negligible change	Potential for minor benefit
	Geology, Hydrogeology & Groundwater	Groundwater / Source Protection	Potential adverse effect on groundwater and wells including groundwater discharge and recharge	Extent of impact	L	Minor water balance benefit	Minor water balance benefit	Minor water balance benefit	No change
Social/Cultural	Cultural Heritage & Archaeology	Archaeological & Cultural Heritage Resources	Potential adverse effects on archaeological and cultural heritage resources	Extent of impact	L	No direct impact (right-of-way)	No direct impact (redeveloping land base)	No direct impact (private property)	Minor potential
	Future Land Use & Growth Impacts	Recreation Use	Ability to support recreation, including access	E. coli concentrations	M	Improved water quality	Improved water quality	Improved water quality	Improved water quality
		Shoreline Access	Access points to lake and canal	Access points	L	No influence on shoreline	No influence on shoreline	No influence on shoreline	No influence on shoreline
		Impacts on Adjacent Properties	Changes to properties resulting from changes to water levels, construction of alternatives, etc.	Private and public properties (number of)	M	None will occur in road right-of-ways	None will occur withing footprint of redevelopment lands	May impact existing properties; however, may reduce fugitive stormwater charge	Minor impacts to local area
	Hydraulics	Flooding - Lake & Canal	Impacts on flood potential in Mohawk Lake and Mohawk Canal	Floodplain extents	M	No impact to quantity	No impact to quantity	No impact to quantity	No impact to quantity
		Flooding - Streets & Sewers	Impacts on flood potential and elevation for water from streets and sewers	Flood depth	M	Potential to concurrently address local flood risk	Potential to concurrently address local flood risk	Potential to concurrently address local flood risk	Potential to concurrently address local flood risk
Economic	Capital Cost	Design and construction costs	estimated cost (\$)	H	Public cost at time of road works	Private cost at time of redevelopment	Private LO cost	Standalone capital cost	
	Contaminant Management	Sediment quantity and quality	Disposal cost (\$ / m <sup>3</sup> )	M	Minor reduction	Minor reduction	Minor reduction	Minor reduction	
	Maintenance Cost	Asset management costs (Lifecycle)	estimated cost (\$)	H	City responsibility	Private redevelopment	Landowner responsibility	City responsibility	
	Property Acquisition	Amount of private property required to achieve solution	Area (hectares, ha)	M	Within road right-of-way	Within industrial / institutional lands	On private property	Will require public land repurposing	
Technical	Stormwater Management	Ability to achieve stormwater management standards	To be determined	H	Meet Provincial Guidelines	Meet Provincial Guidelines	Likely only partially effective	Likely only partially effective	
	Constructability	The ability to construct the improvements in a simple and cost effective manner	Duration / cost	M	Retrofit of existing roads and infrastructure	As part of new development	Retrofit of private property	Repurposing of existing land and infrastructure	
	Community Resilience & Sustainability	Ability of the solution to mitigate climate change impacts	To be determined	M	Recovers system capacity	Recovers system capacity	Recovers system capacity	Marginal change	
<b>Summary</b>						<b>Preferred</b>	<b>Preferred</b>	<b>Complementary</b>	<b>Preferred</b>

	Negative
	Negative-Neutral
	Neutral
	Positive-Neutral
	Positive



# Mohawk Canal and Tributaries

## Remedial Alternatives

- Restoration using natural channel design techniques to improve stability, reduce erosion and sedimentation
- Enhance habitat through revegetation
- Remove excess sediment



# Mohawk Canal and Tributaries Remedial Alternatives Evaluation

Component	Category	Evaluation Criteria	Factor	Measure	Weight	Alternative 5: Revegetation of Riparian Areas and Tributary Streams	Alternative 6: Canal Restoration & Sediment Removal	Alternative 7: Living Shorelines, Shoreline Restoration, Shoreline Softening
Natural Environment	Water Quality	Water Quality & Temperature	Quality of Water for Fish and Wildlife, Recreation, or Human Use	Provincial Water Quality Objectives (PWOQ) and stream management objectives	H	Indirect habitat	Direct habitat improvements	Indirect habitat
	Hydrology & Stormwater Management	Water Quantity	Environmental flows for recreation or wildlife	Flow rate (cubic metres per second, m <sup>3</sup> /s)	L	No change	Potential to improve capacity / sustained flows	No change
	Natural Heritage	Aquatic Habitat	Improvements or impacts to habitat viability	Area of impacted habitat (square metres, m <sup>2</sup> )	H	Indirect habitat	Direct habitat improvements	Indirect habitat
		Wildlife Habitat	Potential effects wildlife due to changes in habitat	Area of impacted habitat (square metres, m <sup>2</sup> )	M	Direct habitat	Riparian zone impact	Indirect habitat
	Fluvial Geomorphology	Fluvial Stability / Sediment Transport	Potential adverse effect on surface water due to drawdown or flow disruption	Extent of impact	M	Minor benefit to stability	Significant potential benefit	No change
	Cultural Heritage & Archaeology	Archaeological & Cultural Heritage Resources	Potential adverse effects on archaeological and cultural heritage resources	Extent of impact	L	Minor potential	Minor potential	No impact
	Future Land Use & Growth Impacts	Recreation Use	Ability to support recreation, including access	E. coli concentrations	M	Limited benefit	Limited benefit	Limited benefit
		Shoreline Access	Access points to lake and canal	Access points	L	No impact	Potential to integrate ingress / egress	Potential to integrate ingress / egress
		Impacts on Adjacent Properties	Changes to properties resulting from changes to water levels, construction of alternatives, etc.	Private and public properties (number of)	M	Minor impacts	Potential to reduce water levels	Minor impacts
	Hydraulics	Flooding - Lake & Canal	Impacts on flood potential in Mohawk Lake and Mohawk Canal	Floodplain extents	M	No change	Potential to reduce water levels	No change
Flooding - Streets & Sewers		Impacts on flood potential and elevation for water from streets and sewers	Flood depth	M	No change	Minor potential to reduce tail water in sewers	No change	
Economic	Capital Cost	Design and construction costs	estimated cost (\$)	H	Moderate	High	Moderate	
	Contaminant Management	Sediment quantity and quality	Disposal cost (\$ / m <sup>3</sup> )	M	Moderate	High	Moderate	
	Maintenance Cost	Asset management costs (Lifecycle)	estimated cost (\$)	H	Long-term reduction in maintenance anticipated	Long-term reduction in maintenance anticipated	Long-term reduction in maintenance anticipated	
	Property Acquisition	Amount of private property required to achieve solution	Area (hectares, ha)	M	Depends on extent, may require some land	Restricted to available lands	None required	
Technical	Stormwater Management	Ability to achieve stormwater management standards	To be determined	H	Limited benefit	Canal will function better	Limited benefit	
	Constructability	The ability to construct the improvements in a simple and cost effective manner	Duration / cost	M	Longevity straightforward	Most complex	Largely straightforward	
	Community Resilience & Sustainability	Ability of the solution to mitigate climate change impacts	To be determined	M	Limited	Improved capacity / resiliency	Limited	
<b>Summary</b>						<b>Complementary</b>	<b>Most Preferred</b>	<b>Complementary</b>

	Negative
	Negative-Neutral
	Neutral
	Positive-Neutral
	Positive





# Mohawk Lake Remediation Alternatives

- Strategic removal of contaminated sediment / lake bed re-contouring
- Shoreline restoration
- Wildlife management (i.e., Grand River outlet control modification to manage invasive species such as carp)



Shoreline Restoration Activities



# Mohawk Lake Remediation Alternatives Evaluation

Component	Category	Evaluation Criteria	Factor	Measure	Weight	Alternative 1: Drawdown / Pump down & Mechanical Dredging	Alternative 2: Hydraulic Dredging	Alternative 3: Sediment Management (Physical Capping)	Alternative 4: Chemical Capping & Nutrient Inactivation
Natural Environment	Water Quality	Water Quality & Temperature	Quality of Water for Fish and Wildlife, Recreation, or Human Use	Provincial Water Quality Objectives (PWOQ) and stream management objectives	H	Positive	Positive	Positive	Positive
	Hydrology & Stormwater Management	Water Quantity	Environmental flows for recreation or wildlife	Flow rate (cubic metres per second, m <sup>3</sup> /s)	L	Positive	Positive	Negative	Neutral
	Natural Heritage	Aquatic Habitat	Improvements or impacts to habitat viability	Area of impacted habitat (square metres, m <sup>2</sup> )	H	Positive	Positive	Positive	Positive
		Wildlife Habitat	Potential effects wildlife due to changes in habitat	Area of impacted habitat (square metres, m <sup>2</sup> )	M	Neutral	Neutral	Neutral	Neutral
	Fluvial Geomorphology	Fluvial Stability / Sediment Transport	Potential adverse effect on surface water due to drawdown or flow disruption	Extent of impact	M	Positive	Positive	Negative	Neutral
	Cultural Heritage & Archaeology	Archaeological & Cultural Heritage Resources	Potential adverse effects on archaeological and cultural heritage resources	Extent of impact	L	Neutral	Neutral	Neutral	Neutral
	Future Land Use & Growth Impacts	Recreation Use	Ability to support recreation, including access	E. coli concentrations	M	Positive	Positive	Neutral	Neutral
		Shoreline Access	Access points to lake and canal	Access points	L	Neutral	Neutral	Neutral	Neutral
		Impacts on Adjacent Properties	Changes to properties resulting from changes to water levels, construction of alternatives, etc.	Private and public properties (number of)	M	Negative	Negative	Neutral	Neutral
	Hydraulics	Flooding - Lake & Canal	Impacts on flood potential in Mohawk Lake and Mohawk Canal	Floodplain extents	M	Positive	Positive	Negative	Neutral
Flooding - Streets & Sewers		Impacts on flood potential and elevation for water from streets and sewers	Flood depth	M	Neutral	Neutral	Neutral	Neutral	
Economic	Capital Cost	Design and construction costs	estimated cost (\$)	H	Negative	Negative	Negative	Negative	
	Contaminant Management	Sediment quantity and quality	Disposal cost (\$ / m <sup>3</sup> )	M	Negative	Negative	Negative	Negative	
	Maintenance Cost	Asset management costs (Lifecycle)	estimated cost (\$)	H	Positive	Positive	Negative	Negative	
	Property Acquisition	Amount of private property required to achieve solution	Area (hectares, ha)	M	Neutral	Neutral	Neutral	Neutral	
Technical	Stormwater Management	Ability to achieve stormwater management standards	To be determined	H	Positive	Positive	Positive	Positive	
	Constructability	The ability to construct the improvements in a simple and cost effective manner	Duration / cost	M	Negative	Neutral	Negative	Negative	
	Community Resilience & Sustainability	Ability of the solution to mitigate climate change impacts	To be determined	M	Positive	Positive	Neutral	Neutral	
<b>Summary</b>						<b>Supportable</b>	<b>Preferred</b>	<b>Screened</b>	<b>Screened</b>

	Negative
	Negative-Neutral
	Neutral
	Positive-Neutral
	Positive



# Other Management Alternatives

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1. Public Education/Outreach
2. Street Sweeping (Enhanced)
3. Recirculation/Re-Connection with Grand River
4. Historic/Abandoned Landfill Investigations



*Remnant Of The Past – This is all that remains of the Grand River Navigation Canal which once flowed from the river, north of Greenwich Street, to Mohawk Lake. The sluice gate allows water to run through a buried pipeline to Mohawk Lake, whenever the river rises.*

*Photo Credit: The Grand River Navigational Company (Bruce Emerson. 1938)*



# Reconnection with Grand River Alternative

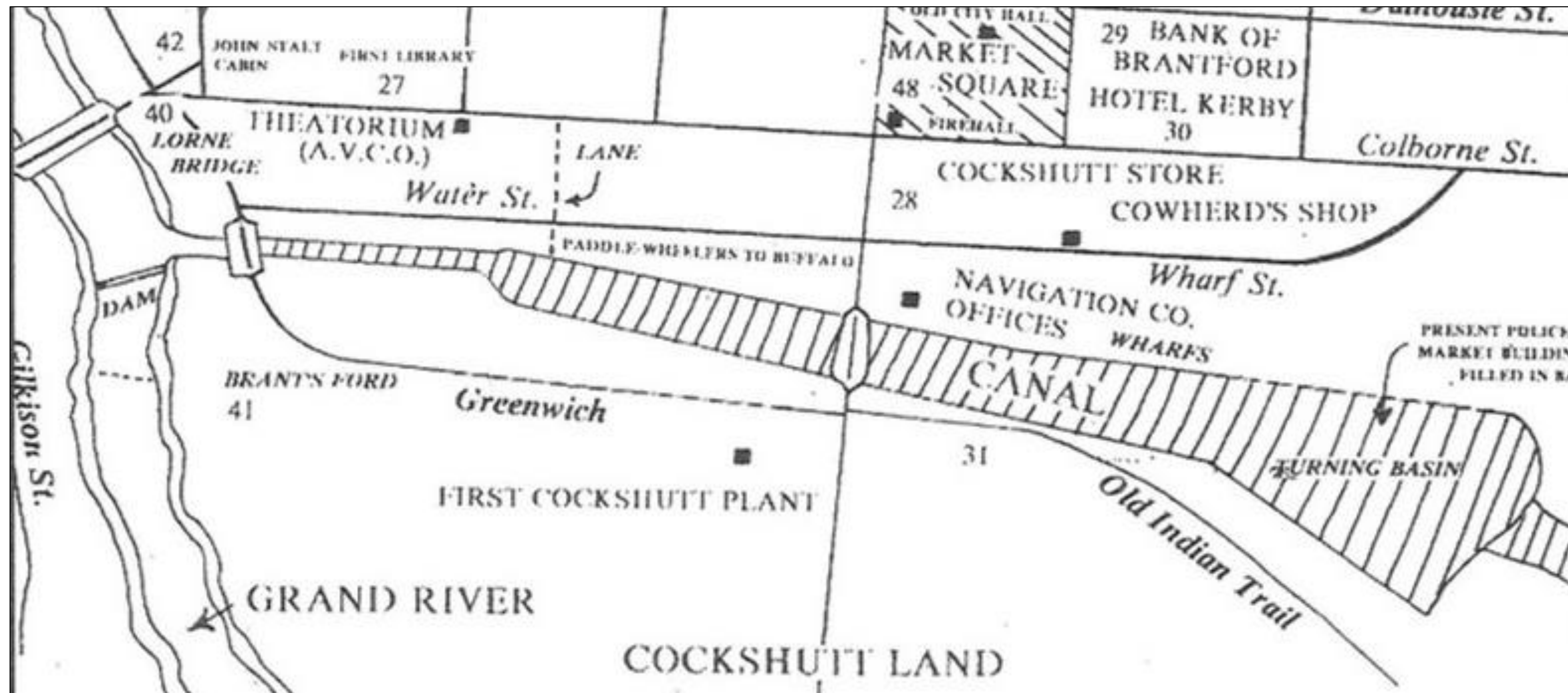
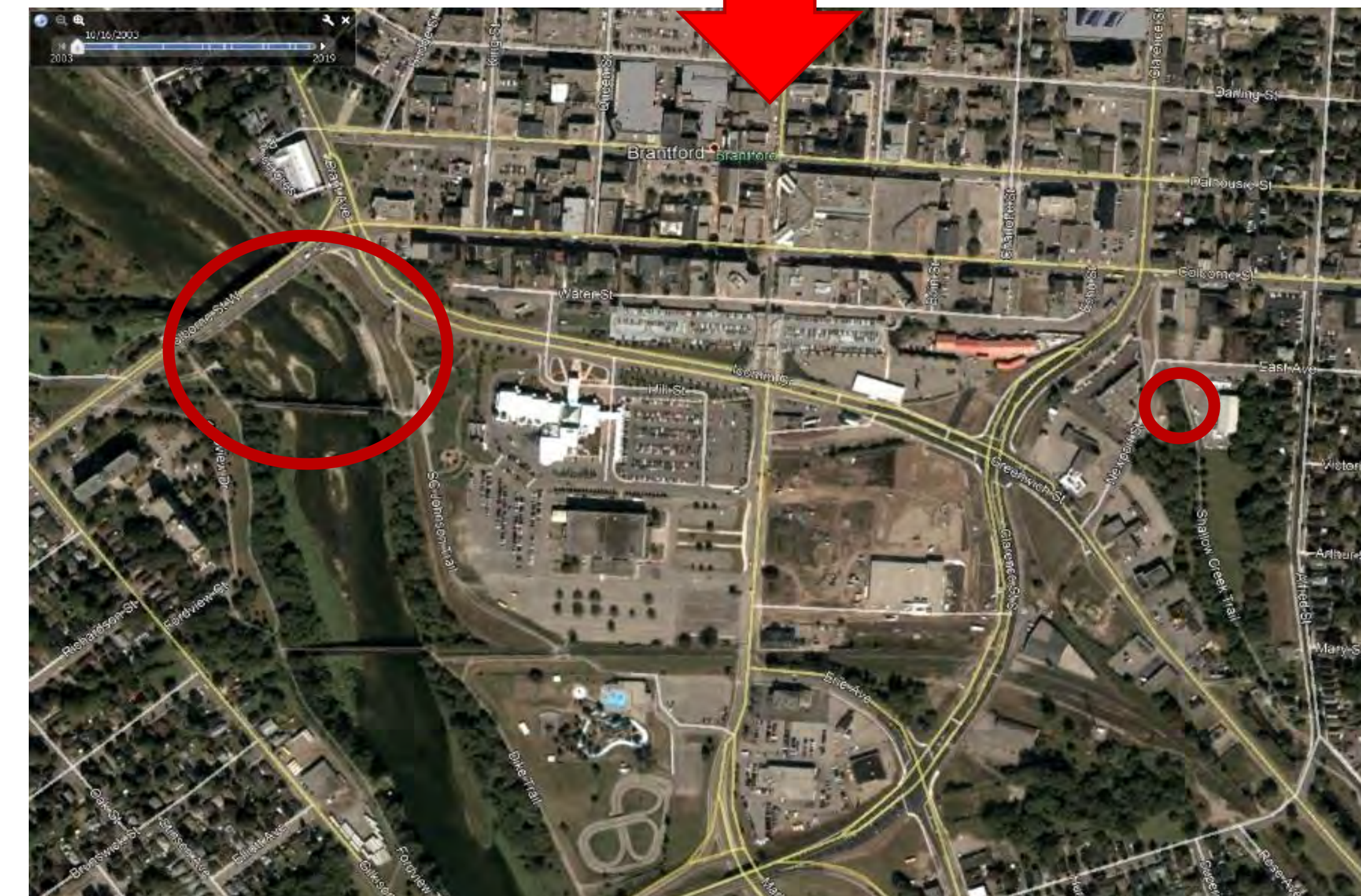


Photo Credit: The Grand River Navigational Company (Bruce Emerson. 1938)

- Grand River Navigation Canal
  - Previously connected Grand River at upstream limits to Mohawk Lake
  - Provided turning basin for boats
- Air Photos
  - Historical air photos up to 1986 show the upstream dam structure between Colborne Street and Dike Trail but no watercourse connection
- Due to reduced Grand River water level (at former dam) potential gravity inflow to Mohawk Canal and Lake is not feasible



# Preliminary Preferred Solution(s) Short-term (2020+)



# Preliminary Preferred Solution(s) Medium and Long-term



# Mohawk Lake Strategic Sediment Removal / Bed Recontouring

- Characterization Study tested the water and sediment in the Lake and Canal and determined that they reflect highly urbanized conditions, with some not meeting Provincial Standards and Objectives
  - Preliminary estimates of historically deposited sediment are in the range of 185,000 m<sup>3</sup> but data suggest that not all of this material needs to be removed
- Additional sampling is required to define specific locations with the ‘worst’ contaminants and develop a *strategic* removal plan
- Lake bed ‘recontouring’ would provide a more functional littoral shelf (near shore zone) offering opportunity for more submerged and emergent aquatic vegetation and improved habitat
  - Detailed bathymetric (underwater ground surface) surveys will be required

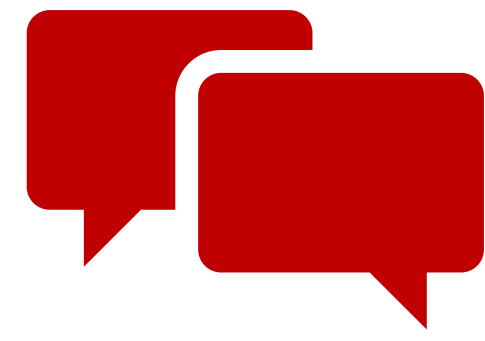


Dredging Activities – From Land



# Future of Mohawk Lake and Mohawk Canal

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*Tell us about your vision for the future of Mohawk Lake and Mohawk Canal!  
What aspects are most important? What are the least important?  
Any additional ideas to add to this vision?*

(Use post-it notes to write your comments here)

## **Mohawk Lake District Plan Vision Statement**

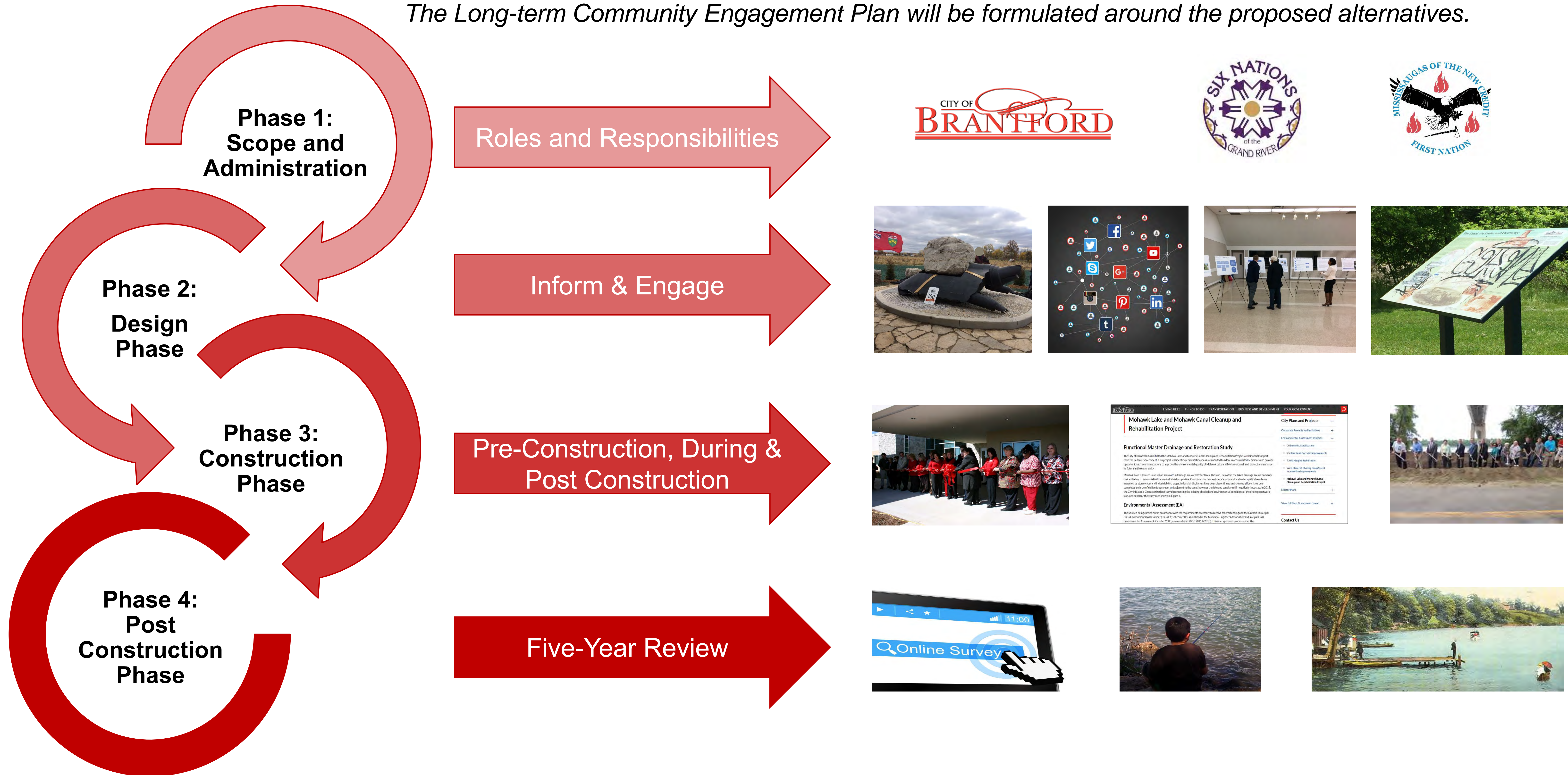
Mohawk Lake District will be: A welcoming place for residents, families and visitors of all ages to explore, shop, eat, learn, and gather. Parks and trails along Mohawk Lake and Canal and throughout the District will provide a beautiful and healthy way to connect with nature. Mohawk Lake District will be where we honour the past, but also a place to be inspired for the future. As a popular destination where history, culture, recreation, and tourism meet, Mohawk Lake District will be a place of pride in the community.





# Long-Term Community Engagement Plan

The Long-term Community Engagement Plan will be formulated around the proposed alternatives.



# Next Steps and Schedule

- Review comments received and prepare a PIC#2 summary report
- Finalize Long-Term Community Engagement Plan
- Prepare and file the Project File Report, summarizing the Study
  - Publish study completion and have available for public review for 30 days (notice will be provided)

**Comment  
Deadline  
November 6,  
2019**

**Thank you for  
your  
participation!**

## Contact Us

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905-335-2353

[Ron.Scheckenberger@woodplc.com](mailto:Ron.Scheckenberger@woodplc.com)

Website: <https://www.brantford.ca/en/your-government/mohawk-lake-and-mohawk-canal-cleanup-and-rehabilitation-project.aspx>





# Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project

## Functional Master Drainage and Restoration Study

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2<sup>nd</sup> Public Information Centre

October 23<sup>rd</sup>, 2019  
5:00 p.m. – 7:00 p.m.

### SIGN-IN SHEET

Please Print Clearly

Name	Address	Phone #	E-mail



# Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project

## Functional Master Drainage and Restoration Study

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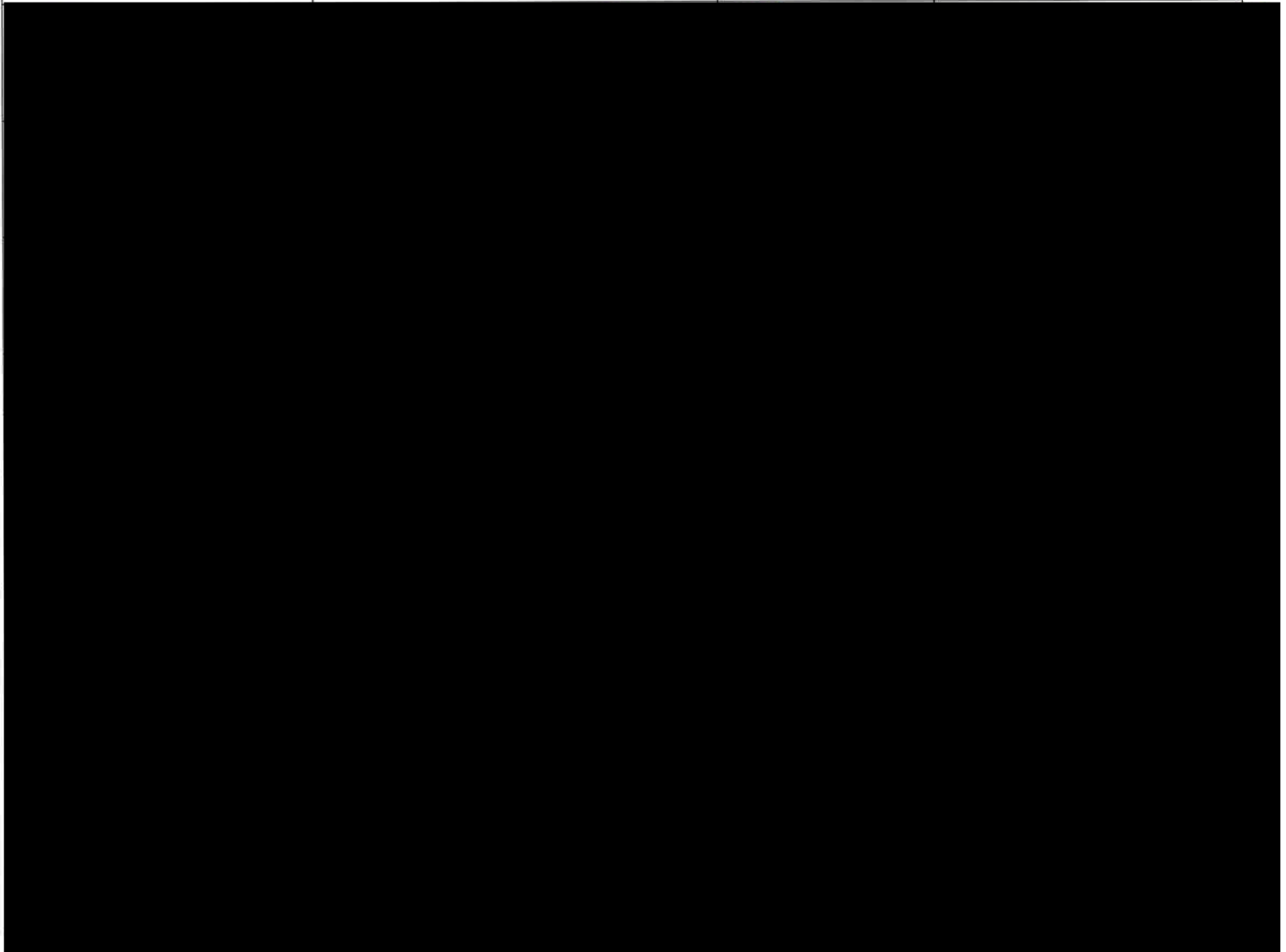
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# Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project

## Functional Master Drainage and Restoration Study

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[Redacted Sign-in Information]			



# Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project

## Functional Master Drainage and Restoration Study

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2<sup>nd</sup> Public Information Centre

October 23<sup>rd</sup>, 2019  
5:00 p.m. – 7:00 p.m.

### SIGN-IN SHEET

Please Print Clearly

Name	Address	Phone #	E-mail
			



## **Agency Comments**

## **A PROPONENT'S INTRODUCTION TO THE DELEGATION OF PROCEDURAL ASPECTS OF CONSULTATION WITH ABORIGINAL COMMUNITIES**

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### **DEFINITIONS**

The following definitions are specific to this document and may not apply in other contexts:

**Aboriginal communities** – the First Nation or Métis communities identified by the Crown for the purpose of consultation.

**Consultation** – the Crown's legal obligation to consult when the Crown has knowledge of an established or asserted Aboriginal or treaty right and contemplates conduct that might adversely impact that right. This is the type of consultation required pursuant to s. 35 of the *Constitution Act, 1982*. Note that this definition does not include consultation with Aboriginal communities for other reasons, such as regulatory requirements.

**Crown** – the Ontario Crown, acting through a particular ministry or ministries.

**Procedural aspects of consultation** – those portions of consultation related to the process of consultation, such as notifying an Aboriginal community about a project, providing information about the potential impacts of a project, responding to concerns raised by an Aboriginal community and proposing changes to the project to avoid negative impacts.

**Proponent** – the person or entity that wants to undertake a project and requires an Ontario Crown decision or approval for the project.

### **I. PURPOSE**

The Crown has a legal duty to consult Aboriginal communities when it has knowledge of an existing or asserted Aboriginal or treaty right and contemplates conduct that may adversely impact that right. In outlining a framework for the duty to consult, the Supreme Court of Canada has stated that the Crown may delegate procedural aspects of consultation to third parties. This document provides general information about the Ontario Crown's approach to delegation of the procedural aspects of consultation to proponents.

This document is not intended to instruct a proponent about an individual project, and it does not constitute legal advice.



## **II. WHY IS IT NECESSARY TO CONSULT WITH ABORIGINAL COMMUNITIES?**

The objective of the modern law of Aboriginal and treaty rights is the *reconciliation* of Aboriginal peoples and non-Aboriginal peoples and their respective rights, claims and interests. Consultation is an important component of the reconciliation process.

The Crown has a legal duty to consult Aboriginal communities when it has knowledge of an existing or asserted Aboriginal or treaty right and contemplates conduct that might adversely impact that right. For example, the Crown's duty to consult is triggered when it considers issuing a permit, authorization or approval for a project which has the potential to adversely impact an Aboriginal right, such as the right to hunt, fish, or trap in a particular area.

The scope of consultation required in particular circumstances ranges across a spectrum depending on both the nature of the asserted or established right and the seriousness of the potential adverse impacts on that right.

Depending on the particular circumstances, the Crown may also need to take steps to accommodate the potentially impacted Aboriginal or treaty right. For example, the Crown may be required to avoid or minimize the potential adverse impacts of the project.

## **III. THE CROWN'S ROLE AND RESPONSIBILITIES IN THE DELEGATED CONSULTATION PROCESS**

The Crown has the responsibility for ensuring that the duty to consult, and accommodate where appropriate, is met. However, the Crown may delegate the procedural aspects of consultation to a proponent.

There are different ways in which the Crown may delegate the procedural aspects of consultation to a proponent, including through a letter, a memorandum of understanding, legislation, regulation, policy and codes of practice.

If the Crown decides to delegate procedural aspects of consultation, the Crown will generally:

- Ensure that the delegation of procedural aspects of consultation and the responsibilities of the proponent are clearly communicated to the proponent;
- Identify which Aboriginal communities must be consulted;
- Provide contact information for the Aboriginal communities;
- Revise, as necessary, the list of Aboriginal communities to be consulted as new information becomes available and is assessed by the Crown;
- Assess the scope of consultation owed to the Aboriginal communities;

- Maintain appropriate oversight of the actions taken by the proponent in fulfilling the procedural aspects of consultation;
- Assess the adequacy of consultation that is undertaken and any accommodation that may be required;
- Provide a contact within any responsible ministry in case issues arise that require direction from the Crown; and
- Participate in the consultation process as necessary and as determined by the Crown.

#### **IV. THE PROPONENT'S ROLE AND RESPONSIBILITIES IN THE DELEGATED CONSULTATION PROCESS**

Where aspects of the consultation process have been delegated to a proponent, the Crown, in meeting its duty to consult, will rely on the proponent's consultation activities and documentation of those activities. The consultation process informs the Crown's decision of whether or not to approve a proposed project or activity.

A proponent's role and responsibilities will vary depending on a variety of factors including the extent of consultation required in the circumstance and the procedural aspects of consultation the Crown has delegated to it. Proponents are often in a better position than the Crown to discuss a project and its potential impacts with Aboriginal communities and to determine ways to avoid or minimize the adverse impacts of a project.

A proponent can raise issues or questions with the Crown at any time during the consultation process. If issues or concerns arise during the consultation that cannot be addressed by the proponent, the proponent should contact the Crown.

##### **a) What might a proponent be required to do in carrying out the procedural aspects of consultation?**

Where the Crown delegates procedural aspects of consultation, it is often the proponent's responsibility to provide notice of the proposed project to the identified Aboriginal communities. The notice should indicate that the Crown has delegated the procedural aspects of consultation to the proponent and should include the following information:

- a description of the proposed project or activity;
- mapping;
- proposed timelines;
- details regarding anticipated environmental and other impacts;
- details regarding opportunities to comment; and
- any changes to the proposed project that have been made for seasonal conditions or other factors, where relevant.

Proponents should provide enough information and time to allow Aboriginal communities to provide meaningful feedback regarding the potential impacts of the project. Depending on the nature of consultation required for a project, a proponent also may be required to:

- provide the Crown with copies of any consultation plans prepared and an opportunity to review and comment;
- ensure that any necessary follow-up discussions with Aboriginal communities take place in a timely manner, including to confirm receipt of information, share and update information and to address questions or concerns that may arise;
- as appropriate, discuss with Aboriginal communities potential mitigation measures and/or changes to the project in response to concerns raised by Aboriginal communities;
- use language that is accessible and not overly technical, and translate material into Aboriginal languages where requested or appropriate;
- bear the reasonable costs associated with the consultation process such as, but not limited to, meeting hall rental, meal costs, document translation(s), or to address technical & capacity issues;
- provide the Crown with all the details about potential impacts on established or asserted Aboriginal or treaty rights, how these concerns have been considered and addressed by the proponent and the Aboriginal communities and any steps taken to mitigate the potential impacts;
- provide the Crown with complete and accurate documentation from these meetings and communications; and
- notify the Crown immediately if an Aboriginal community not identified by the Crown approaches the proponent seeking consultation opportunities.

**b) What documentation and reporting does the Crown need from the proponent?**

Proponents should keep records of all communications with the Aboriginal communities involved in the consultation process and any information provided to these Aboriginal communities.

As the Crown is required to assess the adequacy of consultation, it needs documentation to satisfy itself that the proponent has fulfilled the procedural aspects of consultation delegated to it. The documentation required would typically include:

- the date of meetings, the agendas, any materials distributed, those in attendance and copies of any minutes prepared;
- the description of the proposed project that was shared at the meeting;
- any and all concerns or other feedback provided by the communities;
- any information that was shared by a community in relation to its asserted or established Aboriginal or treaty rights and any potential adverse impacts of the proposed activity, approval or disposition on such rights;

- any proposed project changes or mitigation measures that were discussed, and feedback from Aboriginal communities about the proposed changes and measures;
- any commitments made by the proponent in response to any concerns raised, and feedback from Aboriginal communities on those commitments;
- copies of correspondence to or from Aboriginal communities, and any materials distributed electronically or by mail;
- information regarding any financial assistance provided by the proponent to enable participation by Aboriginal communities in the consultation;
- periodic consultation progress reports or copies of meeting notes if requested by the Crown;
- a summary of how the delegated aspects of consultation were carried out and the results; and
- a summary of issues raised by the Aboriginal communities, how the issues were addressed and any outstanding issues.

In certain circumstances, the Crown may share and discuss the proponent's consultation record with an Aboriginal community to ensure that it is an accurate reflection of the consultation process.

**c) Will the Crown require a proponent to provide information about its commercial arrangements with Aboriginal communities?**

The Crown may require a proponent to share information about aspects of commercial arrangements between the proponent and Aboriginal communities where the arrangements:

- include elements that are directed at mitigating or otherwise addressing impacts of the project;
- include securing an Aboriginal community's support for the project; or
- may potentially affect the obligations of the Crown to the Aboriginal communities.

The proponent should make every reasonable effort to exempt the Crown from confidentiality provisions in commercial arrangements with Aboriginal communities to the extent necessary to allow this information to be shared with the Crown.

The Crown cannot guarantee that information shared with the Crown will remain confidential. Confidential commercial information should not be provided to the Crown as part of the consultation record if it is not relevant to the duty to consult or otherwise required to be submitted to the Crown as part of the regulatory process.

**V. WHAT ARE THE ROLES AND RESPONSIBILITIES OF ABORIGINAL COMMUNITIES' IN THE CONSULTATION PROCESS?**

Like the Crown, Aboriginal communities are expected to engage in consultation in good faith. This includes:

- responding to the consultation notice;
- engaging in the proposed consultation process;
- providing relevant information;
- clearly articulating the potential impacts of the proposed project on Aboriginal or treaty rights; and
- discussing ways to mitigate any adverse impacts.

Some Aboriginal communities have developed tools, such as consultation protocols, policies or processes that provide guidance on how they would prefer to be consulted. Although not legally binding, proponents are encouraged to respect these community processes where it is reasonable to do so. Please note that there is no obligation for a proponent to pay a fee to an Aboriginal community in order to enter into a consultation process.

To ensure that the Crown is aware of existing community consultation protocols, proponents should contact the relevant Crown ministry when presented with a consultation protocol by an Aboriginal community or anyone purporting to be a representative of an Aboriginal community.

## **VI. WHAT IF MORE THAN ONE PROVINCIAL CROWN MINISTRY IS INVOLVED IN APPROVING A PROPONENT'S PROJECT?**

Depending on the project and the required permits or approvals, one or more ministries may delegate procedural aspects of the Crown's duty to consult to the proponent. The proponent may contact individual ministries for guidance related to the delegation of procedural aspects of consultation for ministry-specific permits/approvals required for the project in question. Proponents are encouraged to seek input from all involved Crown ministries sooner rather than later.

Ministry of the Environment,  
Conservation and Parks  
Drinking Water and Environmental  
Compliance Division  
West Central Region

119 King Street West  
12<sup>th</sup> Floor  
Hamilton, Ontario L8P 4Y7  
Tel.: 905 521-7640  
Fax: 905 521-7820

Ministère de l'Environnement  
de la Protection de la nature et des Parcs  
Division de la conformité en matière d'eau  
potable et d'environnement  
Direction régionale du Centre-Ouest

119 rue King Ouest  
12<sup>e</sup> étage  
Hamilton (Ontario) L8P 4Y7  
Tél. : 905 521-7640  
Télec. : 905 521-7820



February 15, 2019

Mr. Nahed Ghbn  
City of Brantford

Mr. Bob Felker  
Wood.

Dear Messrs. Ghbn and Felker

Re: Mohawk Lake and Mohawk Canal and Rehabilitation Project  
City of Brantford, MEA Schedule B Project  
Response to Notice of Commencement

This letter is in response to the Notice of Commencement for the above noted project. The Ministry of the Environment, Conservation and Parks (MECP) acknowledges that the City of Brantford has indicated it is undertaking this study to improve the environmental quality of Mohawk Lake and Mohawk Canal, assess remediation alternatives, and engage the public, review agencies, and indigenous communities in the process. The City is proposing to meet the requirements by following the Master Plan Approach #2 as this approach fulfills Phases 1 and 2 of the Municipal Class EA process for any Schedule B projects and will identify any Schedule C projects that will require further project-specific assessment.

The Crown has a legal duty to consult Aboriginal communities when it has knowledge, real or constructive, of the existence or potential existence of an Aboriginal or treaty right and contemplates conduct that may adversely impact that right. Before authorizing this project, the Crown must ensure that its duty to consult has been fulfilled, where such a duty is triggered. Although the duty to consult with Aboriginal peoples is a duty of the Crown, the Crown may delegate procedural aspects of this duty to project proponents while retaining oversight of the consultation process.

Your proposed project may have the potential to affect Aboriginal or treaty rights protected under Section 35 of Canada's *Constitution Act* 1982. Where the Crown's duty to consult is triggered in relation to your proposed project, **MECP is delegating the procedural aspects of rights-based consultation to you through this letter.** The Crown intends to rely on the delegated consultation process in discharging its duty to consult and maintains the right to participate in the consultation process as it sees fit.

Based on information you have provided to date and the Crown's preliminary assessment you are required to consult with the following communities who have been identified as potentially affected by your proposed project:

- Six Nations of the Grand River
- Haudenosaunee Confederacy Chiefs Council
- Mississauga of the Credit First Nation

Steps that you may need to take in relation to Aboriginal consultation for your proposed project are outlined in the “Code of Practice for Consultation in Ontario’s Environmental Assessment Process” which can be found at the following link: <https://www.ontario.ca/document/consultation-ontarios-environmental-assessment-process> while additional information related to Ontario’s Environmental Assessment Act is available online at: [www.ontario.ca/environmentalassessments](http://www.ontario.ca/environmentalassessments)

You must contact the Director of Environmental Approvals Branch under the following circumstances subsequent to initial discussions with the communities identified by MECP:

- Aboriginal or treaty rights impacts are identified to you by the communities
- You have reason to believe that your proposed project may adversely affect an Aboriginal or treaty right
- Consultation has reached an impasse
- A Part II Order request or elevation request is expected

The Director of the Environmental Approvals Branch can be notified either by email with the subject line “Potential Duty to Consult” to [EAASIBgen@ontario.ca](mailto:EAASIBgen@ontario.ca) or by mail or fax at the address provided below:

<b>Email:</b>	<a href="mailto:EAASIBGen@ontario.ca">EAASIBGen@ontario.ca</a> Subject: Potential Duty to Consult
<b>Fax:</b>	416-314-8452
<b>Address:</b>	Environmental Approvals Branch 135 St. Clair Avenue West, 1 <sup>st</sup> Floor Toronto, ON, M4V 1P5

The MECP will then assess the extent of any Crown duty to consult for the circumstances and will consider whether additional steps should be taken, including what role you will be asked to play in them.

Due to the focus of this project and the potential involvement of the ministry as an approval authority, we would like to be more actively involved during the course of the master planning process at strategic points (as determined by the study team) in order to update us on the status and progress and to enable ministry staff to provide comments and input as may be appropriate. As always, ministry staff will be available to answer any questions or provide assistance to the project team upon request. Please do not hesitate to contact me should you have questions or wish to discuss the project by calling (905) 521-7864 or by email at [Barbara.slattery@ontario.ca](mailto:Barbara.slattery@ontario.ca)

Sincerely,



Barbara Slattery  
EA/Planning Coordinator

cc. Ms. J. Volpato, District Engineer, GDO, MECP (via email only)

## Shams, Aniq

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**From:** Scheckenberger, Ron  
**Sent:** Thursday, June 6, 2019 5:11 PM  
**To:** Stokke, Samantha; Felker, Bob; Shams, Aniq  
**Cc:** Senior, Matt  
**Subject:** FW: 0010716 -Brantford -Mohawk Lake and Canal Project -MTCS Ltr  
**Attachments:** 0010716 -Mohawk Lake and Mohawk Canal -MTCS Ltr.pdf

FYI

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**From:** Kirzati, Katherine (MTCS) [mailto:Katherine.Kirzati@ontario.ca]  
**Sent:** June-06-19 2:46 PM  
**To:** Scheckenberger, Ron <ron.scheckenberger@woodplc.com>; nghbn@brantford.ca  
**Subject:** 0010716 -Brantford -Mohawk Lake and Canal Project -MTCS Ltr

Good Afternoon Ron:

Attached please find our acknowledgement letter for the above-note project.

Also, is it possible to obtain a copy of the display boards for PIC 1, that was held on June 05, 2019?

Regards, Katherine

Katherine Kirzati  
Heritage Planner  
Programs and Services Branch  
Ministry of Tourism, Culture and Sport  
401 Bay St, Suite 1700  
Toronto, ON M7A 2R9  
416.314.7643  
[katherine.kirzati@ontario.ca](mailto:katherine.kirzati@ontario.ca)



06 June 2019

EMAIL ONLY

Ron Scheckenberger, M.Eng., P.Eng.  
Principal Consultant  
Wood, Environment and Infrastructure Solutions  
3215 North Service Road  
Burlington, ON L7R 3Y2  
[ron.scheckenberger@woodplc.com](mailto:ron.scheckenberger@woodplc.com)

**MTCS File** : **0010716**  
**Proponent** : **City of Brantford**  
**Subject** : **Notice of Commencement**  
**Project** : **Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project**  
**Location** : **Study Area as Depicted in the Notice of Commencement, City of Brantford**

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Dear Mr. Scheckenberger:

Thank you for providing the Ministry of Tourism, Culture and Sport (MTCS) with the Notice of Commencement for the above-referenced project. MTCS's interest in this Environmental Assessment (EA) project relates to its mandate of conserving Ontario's cultural heritage, which includes:

- Archaeological resources, including land and marine;
- Built heritage resources, including bridges and monuments; and,
- Cultural heritage landscapes.

Under the EA process, the proponent is required to determine a project's potential impact on cultural heritage resources.

### **Project Summary**

The City of Brantford has initiated a project for cleaning and rehabilitating Mohawk Lake and Mohawk Canal due to accumulated sediments and to address the environmental quality of the lake and canal.

This project is proceeding as a Schedule B undertaking via the Municipal Class Environmental Assessment process.

### **Identifying Cultural Heritage Resources**

While some cultural heritage resources may have already been formally identified, others may be identified through screening and evaluation. Indigenous communities may have knowledge that can contribute to the identification of cultural heritage resources, and we suggest that any engagement with Indigenous communities includes a discussion about known or potential cultural heritage resources that are of value to these communities. Municipal Heritage Committees, historical societies and other local heritage organizations may also have knowledge that contributes to the identification of cultural heritage resources.

### **Archaeological Resources**

MTCS finds that this EA project may impact archaeological resources, as it meets the criteria of proximity to water and to a registered archaeological site. As an initial step, the project should be screened using the MTCS [Criteria for Evaluating Archaeological Potential](#) and [Criteria for Evaluating Marine Archaeological Potential](#) to determine if an archaeological assessment is needed. MTCS archaeological sites data are available at [archaeology@ontario.ca](mailto:archaeology@ontario.ca). An archaeological assessment (AA) should be undertaken by an archaeologist licenced under the OHA, who is responsible for submitting the report directly to MTCS for review.

**Built Heritage and Cultural Heritage Landscapes**

The MTCS [Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes](#) should be completed to help determine whether this EA project may impact cultural heritage resources. The Clerk for the City of Brantford can provide information on property registered or designated under the *Ontario Heritage Act*. Municipal Heritage Planners can also provide information that will assist in completing the checklist.

If potential or known heritage resources exist, MTCS recommends that a Heritage Impact Assessment (HIA), prepared by a qualified consultant, should be completed to assess potential project impacts. Our Ministry's [Info Sheet #5: Heritage Impact Assessments and Conservation Plans](#) outlines the scope of HIAs. Please send the HIA to MTCS and the City of Brantford for review and make it available to local organizations or individuals who have expressed interest in review.

Please provide a copy of the completed checklists to MTCS.

**Environmental Assessment Reporting**

All technical cultural heritage studies and their recommendations are to be addressed and incorporated into EA projects. Please advise MTCS whether any technical cultural heritage studies will be completed for this EA project, and provide them to MTCS before issuing a Notice of Completion or commencing any work on the site. If screening has identified no known or potential cultural heritage resources, or no impacts to these resources, please include the completed checklists and supporting documentation in the EA report or file.

Thank you for consulting MTCS on this project and please continue to do so throughout the EA process. If you have any questions or require clarification, do not hesitate to contact me.

Sincerely,

Katherine Kirzati  
Heritage Planner  
Heritage Planning Unit  
[katherine.kirzati@ontario.ca](mailto:katherine.kirzati@ontario.ca)

c: Nahed Ghbn, Senior Project Manager, City of Brantford

It is the sole responsibility of proponents to ensure that any information and documentation submitted as part of their EA report or file is accurate. MTCS makes no representation or warranty as to the completeness, accuracy or quality of the any checklists, reports or supporting documentation submitted as part of the EA process, and in no way shall MTCS be liable for any harm, damages, costs, expenses, losses, claims or actions that may result if any checklists, reports or supporting documents are discovered to be inaccurate, incomplete, misleading or fraudulent.

Please notify MTCS if archaeological resources are impacted by EA project work. All activities impacting archaeological resources must cease immediately, and a licensed archaeologist is required to carry out an archaeological assessment in accordance with the *Ontario Heritage Act* and the *Standards and Guidelines for Consultant Archaeologists*.

If human remains are encountered, all activities must cease immediately and the local police as well as the Registrar, Burials of the Ministry of Government and Consumer Services (416-326-8800) must be contacted. In situations where human remains are associated with archaeological resources, MTCS should also be notified to ensure that the site is not subject to unlicensed alterations which would be a contravention of the *Ontario Heritage Act*.

## Shams, Aniq

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**From:** Scheckenberger, Ron  
**Sent:** Thursday, May 30, 2019 9:18 AM  
**To:** Felker, Bob; Kelly, Mary K; Stokke, Samantha; Shams, Aniq  
**Cc:** Senior, Matt  
**Subject:** FW: Mohawk Lake and Canal cleanup and rehabilitation project  
**Attachments:** NEATS 49899.pdf

fyi

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**From:** EnviroOnt [mailto:EnviroOnt@tc.gc.ca]  
**Sent:** May-27-19 10:12 AM  
**To:** NGHbn@brantford.ca; Scheckenberger, Ron <ron.scheckenberger@woodplc.com>  
**Subject:** Mohawk Lake and Canal cleanup and rehabilitation project

Greetings,

Thank you for your correspondence.

Please note Transport Canada **does not** require receipt of all individual or Class EA related notifications. We are requesting project proponents to self-assess if their project:

1. Will interact with a federal property and/or waterway by reviewing the Directory of Federal Real Property, available at [www.tbs-sct.gc.ca/dfrp-rbif/](http://www.tbs-sct.gc.ca/dfrp-rbif/); **and**
2. Will require approval and/or authorization under any Acts administered by Transport Canada\* available at <http://www.tc.gc.ca/eng/acts-regulations/menu.htm>.

Projects that will occur on federal property prior to exercising a power, performing a function or duty in relation to that project, will be subject to a determination of the likelihood of significant adverse environmental effects, per Section 67 of the *Canadian Environmental Assessment Act, 2012*.

If the aforementioned does not apply, the Environmental Assessment program should not be included in any further correspondence and future notifications will not receive a response. If there is a role under the program, correspondence should be forwarded *electronically* to: [EnviroOnt@tc.gc.ca](mailto:EnviroOnt@tc.gc.ca) with a **brief description of Transport Canada's expected role**.

\*Below is a summary of the most common Acts that have applied to projects in an Environmental Assessment context:

- **Navigation Protection Act (NPA)** – the Act applies primarily to works constructed or placed in, on, over, under, through, or across scheduled navigable waters set out under the Act. The Navigation Protection Program administers the NPA through the review and authorization of works affecting scheduled navigable waters. Information about the Program, NPA and approval process is available at: <http://www.tc.gc.ca/eng/programs-621.html>. Enquiries can be directed to [NPPONT-PPNONT@tc.gc.ca](mailto:NPPONT-PPNONT@tc.gc.ca) or by calling (519) 383-1863.
- **Railway Safety Act (RSA)** – the Act provides the regulatory framework for railway safety, security, and some of the environmental impacts of railway operations in Canada. The Rail Safety Program develops and enforces regulations, rules, standards and procedures governing safe railway operations. Additional information about the Program is available at: <https://www.tc.gc.ca/eng/railsafety/menu.htm>. Enquiries can be directed to [RailSafety@tc.gc.ca](mailto:RailSafety@tc.gc.ca) or by calling (613) 998-2985.

- **Transportation of Dangerous Goods Act (TDGA)** – the transportation of dangerous goods by air, marine, rail and road is regulated under the TDGA. Transport Canada, based on risks, develops safety standards and regulations, provides oversight and gives expert advice on dangerous goods to promote public safety. Additional information about the transportation of dangerous goods is available at: <https://www.tc.gc.ca/eng/tdg/safety-menu.htm>. Enquiries can be directed to [TDG-TMDOntario@tc.gc.ca](mailto:TDG-TMDOntario@tc.gc.ca) or by calling (416) 973-1868.
- **Aeronautics Act** – Transport Canada has sole jurisdiction over aeronautics, which includes aerodromes and all related buildings or services used for aviation purposes. Aviation safety in Canada is regulated under this Act and the Canadian Aviation Regulations (CARs). Elevated Structures, such as wind turbines and communication towers, would be examples of projects that must be assessed for lighting and marking requirements in accordance with the CARs. Transport Canada also has an interest in projects that have the potential to cause interference between wildlife and aviation activities. One example would be waste facilities, which may attract birds into commercial and recreational flight paths. The *Land Use In The Vicinity of Aerodromes* publication recommends guidelines for and uses in the vicinity of aerodromes, available at: <https://www.tc.gc.ca/eng/civilaviation/publications/tp1247-menu-1418.htm>. Enquires can be directed to at [tc.aviationservicesont-servicesaviationont.tc@tc.gc.ca](mailto:tc.aviationservicesont-servicesaviationont.tc@tc.gc.ca) or by calling 1 (800) 305-2059 / (416) 952-0230.

Please advise if additional information is needed.

Thank you,

**Environmental Assessment Program, Ontario Region**

Transport Canada / Government of Canada / 4900 Yonge St., Toronto, ON M2N 6A5

[EnviroOnt@tc.gc.ca](mailto:EnviroOnt@tc.gc.ca) / Facsimile : (416) 952-0514 / TTY: 1-888-675-6863

**Programme d'évaluation environnementale, Région de l'Ontario**

Transports Canada / Gouvernement du Canada / 4900, rue Yonge, Toronto, ON, M2N 6A5

[EnviroOnt@tc.gc.ca](mailto:EnviroOnt@tc.gc.ca) / télécopieur: (416) 952-0514

From: EA Notices to WCRegion (MECP) <eanotification.wcregion@ontario.ca>  
Sent: Friday, February 01, 2019 3:19 PM  
To: Shams, Aniq; EA Notices to WCRegion (MECP)  
Cc: Scheckenberger, Ron; Kelly, Mary K; NGHbn@brantford.ca; Senior, Matt; Felker, Bob  
Subject: RE: City of Brantford, MEA Class EA, Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project - Functional Master Drainage and Restoration Study

Good afternoon folks,

I've put in the request for identification of FN communities for consultation and will get back to you with those names as soon as I have them.

Barb Slattery, EA/Planning Coordinator  
Ministry of the Environment, Conservation and Parks  
West Central Region  
(905) 521-7864

---

From : Shams, Aniq [mailto:aniqa.shams@woodplc.com]  
Sent : January 31, 2019 5:21 PM  
To : EA Notices to WCRegion (MECP)  
Cc : Scheckenberger, Ron; Kelly, Mary K; NGHbn@brantford.ca; Senior, Matt; Felker, Bob  
Subject : City of Brantford, MEA Class EA, Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project - Functional Master Drainage and Restoration Study

The City of Brantford has initiated a Municipal Class Environmental Assessment (Class EA) study for the Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project, with financial support from the Federal Government. This project will identify rehabilitation measures needed to address accumulated sediments and provide opportunities / recommendations to improve the environmental quality of Mohawk Lake and Mohawk Canal, and protect and enhance its future in the community.

Please find attached the Notice of Commencement and Project Information Form for this Project. Once we have received confirmation from the MECP regarding the Indigenous communities to contact, the Protect team will publish and distribute the Notice.

If you should have any questions, please contact either the City of Brantford's Project Manager (Nahed Ghbn, 519-759-4150 ext.5262, [NGhbn@brantford.ca](mailto:NGhbn@brantford.ca)) or the Principal Consultant (Ron Scheckenberger, 905-335-2353, [ron.scheckenberger@woodplc.com](mailto:ron.scheckenberger@woodplc.com)).

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From: Kelly, Mary K  
Sent: Tuesday, February 05, 2019 9:32 AM  
To: Shams, Aniq; Felker, Bob  
Subject: FW: City of Brantford, MEA Class EA, Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project - Functional Master Drainage and Restoration Study

FYI and file

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From: Nahed Ghbn <NGhbn@brantford.ca>  
Sent: Monday, February 04, 2019 1:15 PM  
To: EA Notices to WCRegion (MECP) <eanotification.wcregion@ontario.ca>  
Cc: Kelly, Mary K <mary.k.kelly@woodplc.com>; Scheckenberger, Ron <ron.scheckenberger@woodplc.com>; Felker, Bob <bob.felker@woodplc.com>  
Subject: City of Brantford, MEA Class EA, Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project - Functional Master Drainage and Restoration Study

Hi Barb,

I would like to provide the following update to explain the rationale behind using the MEA Class EA in this project as requested.

Mohawk Lake was constructed in the 1800s as part of the canal system to provide access for barges traveling through Brantford and to enable barges to turn around. In the early 1900s, the lake and the surrounding parkland provided the community with large recreational opportunities to residents city-wide and continue to offer valuable natural heritage for the City.

Years of uncontrolled drainage and a legacy of industrial discharges of former industrial lands adjacent to the canal have resulted in the deterioration of the lake and migration of contaminants to the Lake. Industrial discharges have been discontinued for many years, and recently upstream brownfield remediation has eliminated.

The City of Brantford is seeking to improve the environmental quality of Mohawk Lake and Mohawk Canal to provide enhanced recreational, fish and wildlife and improved water quality conditions.

The primary objective of the Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project is to protect and enhance the environment in a manner which is in harmony with the natural features of the Mohawk Lake watershed. Through remedial measures, to be proposed as part of the EA phase of the project, it is expected to restore and maintain the natural water quality and ecological integrity of Mohawk Lake to an acceptable level.

The Municipal Class Environmental Assessment process will be carried out following the requirements of the Master Plan Approach #2- phase 1 & 2 of the municipal EA process.

The project will consider and evaluate the environmental effects that will have specific planning and design process requirements including problem statement, EA development phases (One and Two), and examination of alternatives & selecting the preferred options.

Consultation with agencies, public and aboriginal communities are considered to be an essential component of the Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project.

Please do not hesitate to contact us if you have any questions.

Regards,  
Nahed

Nahed Ghbn, PMP, P.Eng.  
Senior Project Manager, Water Resources  
Engineering Services- Public Works Commission  
City of Brantford

City Hall, 100 Wellington Square, Brantford, N3T 2M2  
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-----  
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## **Public Comments**

**Mohawk Lake and Mohawk Canal  
Cleanup and Rehabilitation Project  
Functional Master Drainage and Restoration Study  
Public Information Centre 1 – Wednesday June 5, 2019**

1. From the list of possible environmental issues and concerns commonly related to natural systems and function affected by urban uses, please identify which you consider important to the Mohawk Lake and Mohawk Canal Study and why.

	Importance			Why?
	Very	Somewhat	Not	
Quality of water for human use	✓			
Quality of water for fish & wildlife habitat	✓			
Quality / quantity of water for recreation			✓	
Aquatic habitat (fish, invertebrates)	✓			
Terrestrial habitat (wildlife, birds)	✓			
Vegetation	✓			
Flooding from streams and rivers		?		need more info
Flooding from streets / sewers		?		" " "
Stream erosion & sediment accumulation	✓			

2. Do you have any other environmental issues or concerns related to the Mohawk Lake and Mohawk Canal Study Area?

Yes - Through decades of happy neglect, area has become a green corridor + is important wildlife habitat for dozens upon dozens of species of amphibians, reptiles, birds + mammals.

3. What recommendations might you suggest to address your key issues or concerns?

Keep the green!  
Turn part of Greenwich (easternmost) into part of Mohawk Lake + eliminate that section of road.

4. Do you have any background information about the Study Area that you believe would be useful to the Study Team? (Examples: impacts from existing urban areas on the health of the Study Area, flooding locations/incidents, erosion location, natural features of interest or in a poor state of health, other areas of interest or concern, etc.)

Yes - provided species count from 2018-

5. Which criteria or factors do you think the alternatives should be evaluated by?

?

6. How do you want to be engaged in this Study (i.e. by email, letter, social media)?

email



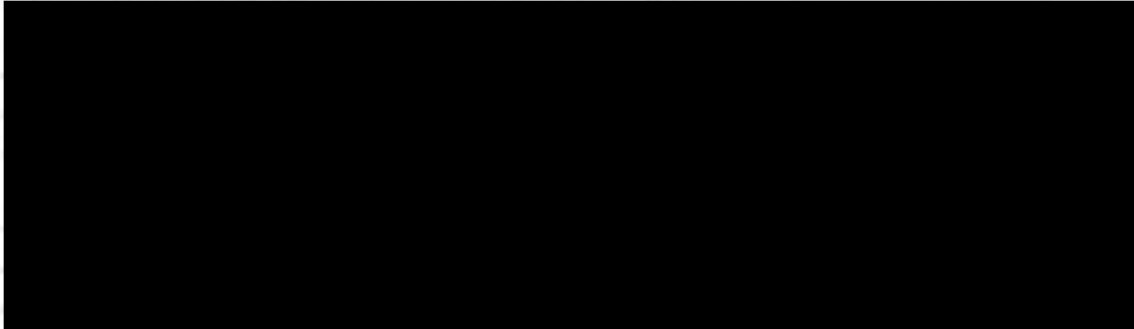
The City of Brantford welcomes your comments. Please drop your completed Comment Form in the box provided. You can also mail or email to either of the following individuals:

**Nahed Ghbn P.Eng.**  
Senior Project Manager  
City of Brantford  
Tel: 519-759-4150 ext. 5262  
Email: NGhbn@brantford.ca

**Ron Scheckenberger M.Eng., P.Eng.**  
Principal Consultant  
Wood Environment & Infrastructure Solutions  
Tel: 905-335-2353  
Email: ron.scheckenberger@woodplc.com

**Thank you for your participation. Please PRINT your contact information below.**

Name:  
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Postal  
Code:  
Phone:  
Email:



Do you wish to be added to our *Project Mailing List* to be kept informed about the Study?

YES  / NO  *already on list, Thanks*

**Thank you for taking the time to complete this comment sheet!**

Please return the completed comment sheet by **June 21, 2019**

Nahed Ghbn P.Eng, City of Brantford  
City Hall, 100 Wellington Square, Brantford, Ontario N3T 2M2  
Tel: 519-759-4150 ext. 5262  
By Email: nghbn@brantford.ca

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**Mohawk Lake and Mohawk Canal  
Cleanup and Rehabilitation Project  
Functional Master Drainage and Restoration Study  
Public Information Centre 1 – Wednesday June 5, 2019**

1. From the list of possible environmental issues and concerns commonly related to natural systems and function affected by urban uses, please identify which you consider important to the Mohawk Lake and Mohawk Canal Study and why.

	Importance			Why?
	Very	Somewhat	Not	
Quality of water for human use			X	Allowing beaches / swimming opens up liabilities / re: water testing, risk of sharps & needles etc etc
Quality of water for fish & wildlife habitat	X			Natural refuge for turtles, frogs, fish & birds, sm. mammals etc.
Quality / quantity of water for recreation		X		Canoeing & kayaking yes but no motorized watercraft.
Aquatic habitat (fish, invertebrates)	X			Completes the circle or chain of nature.
Terrestrial habitat (wildlife, birds)	X			As above .....
Vegetation	X			Environmentally & habitat - friendly species (non-invasive)
Flooding from streams and rivers		X		A natural occurrence.
Flooding from streets / sewers	X			← Once the dredging & clean-up or remediation is complete it will be vital to prevent more of the same problems in the future.
Stream erosion & sediment accumulation	X			

2. Do you have any other environmental issues or concerns related to the Mohawk Lake and Mohawk Canal Study Area?

Presumably with the topography & infrastructure within the 'catchment area', it would not be feasible to re-route <sup>any</sup> storm drains & so on.

3. What recommendations might you suggest to address your key issues or concerns?

Obviously dredging & cleanup of water quality IS THE Priority - assuming funding (federal, provincial, municipal) can be obtained.

4. Do you have any background information about the Study Area that you believe would be useful to the Study Team? (Examples: impacts from existing urban areas on the health of the Study Area, flooding locations/incidents, erosion location, natural features of interest or in a poor state of health, other areas of interest or concern, etc.)

I think it is wise to include the indigenous influence or aspect of "mother Earth" with regard to values & prioritizing ways of people 'using' Mohawk Lake.

5. Which criteria or factors do you think the alternatives should be evaluated by?

? what alternatives

6. How do you want to be engaged in this Study (i.e. by email, letter, social media)?

Expositor newspaper  
City website  
Newsletter mailing.



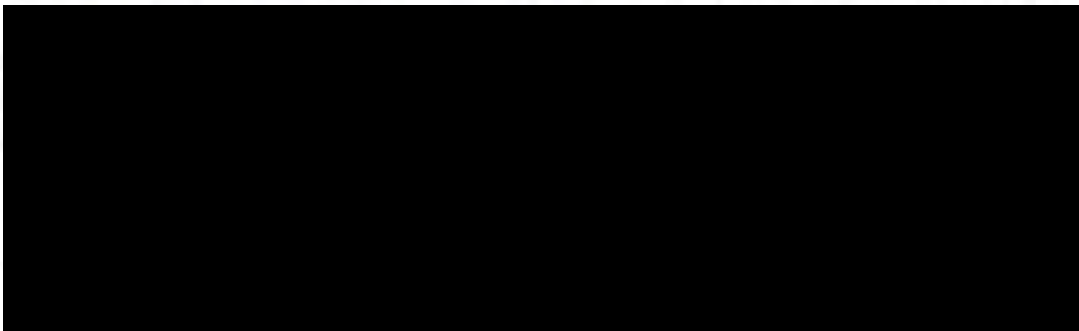
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**Name:**  
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**Email:**



Do you wish to be added to our *Project Mailing List* to be kept informed about the Study?

YES  / NO

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Functional Master Drainage and Restoration Study  
Public Information Centre 1 – Wednesday June 5, 2019**

1. From the list of possible environmental issues and concerns commonly related to natural systems and function affected by urban uses, please identify which you consider important to the Mohawk Lake and Mohawk Canal Study and why.

	Importance			Why?
	Very	Somewhat	Not	
Quality of water for human use			✓	you would require strict regulations for testing, keep lake natural for wildlife
Quality of water for fish & wildlife habitat	✓			encourages habitat of wildlife -
Quality / quantity of water for recreation		✓	<del>✓</del>	would like to see canoe + kayaking on lake and is motorized
Aquatic habitat (fish, invertebrates)	✓			
Terrestrial habitat (wildlife, birds)	✓			to maintain peaceful environment
Vegetation	✓			to attract wildlife
Flooding from streams and rivers	✓			to maintain present landsite from future erosion
Flooding from streets / sewers	✓			at difficult to reroute storm sewers
Stream erosion & sediment accumulation	✓			



2. Do you have any other environmental issues or concerns related to the Mohawk Lake and Mohawk Canal Study Area?

*to ~~locate~~ eliminate using the Park for drug users & syringes*

3. What recommendations might you suggest to address your key issues or concerns?

4. Do you have any background information about the Study Area that you believe would be useful to the Study Team? (Examples: impacts from existing urban areas on the health of the Study Area, flooding locations/incidents, erosion location, natural features of interest or in a poor state of health, other areas of interest or concern, etc.)

5. Which criteria or factors do you think the alternatives should be evaluated by?

6. How do you want to be engaged in this Study (i.e. by email, letter, social media)?

*social media*

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**Mohawk Lake and Mohawk Canal  
Cleanup and Rehabilitation Project  
Functional Master Drainage and Restoration Study  
Public Information Centre 1 – Wednesday June 5, 2019**

1. From the list of possible environmental issues and concerns commonly related to natural systems and function affected by urban uses, please identify which you consider important to the Mohawk Lake and Mohawk Canal Study and why.

	Importance			Why?
	Very	Somewhat	Not	
Quality of water for human use		✓		As a natural area, people are not using the water for drinking
Quality of water for fish & wildlife habitat	✓			Top quality water needed to support fish/wildlife
Quality / quantity of water for recreation		✓		
Aquatic habitat (fish, invertebrates)	✓			Water, fish, wildlife, vegetation + trees all exist together.
Terrestrial habitat (wildlife, birds)	✓			" "
Vegetation	✓			" "
Flooding from streams and rivers	✓			Controls are needed to keep the area from being damaged.
Flooding from streets / sewers	✓			Flooding will likely bring sediment.
Stream erosion & sediment accumulation	✓			The area might be damaged

2. Do you have any other environmental issues or concerns related to the Mohawk Lake and Mohawk Canal Study Area?

My concept is that of a natural recreation area that has healthy fauna and flora, and opportunities for recreation (swimming, canoeing, hiking and walking)

3. What recommendations might you suggest to address your key issues or concerns?

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4. Do you have any background information about the Study Area that you believe would be useful to the Study Team? (Examples: impacts from existing urban areas on the health of the Study Area, flooding locations/incidents, erosion location, natural features of interest or in a poor state of health, other areas of interest or concern, etc.)

NO

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5. Which criteria or factors do you think the alternatives should be evaluated by?

- Sustainability of fish, wildlife, birds, vegetation  
- potential for human recreation

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6. How do you want to be engaged in this Study (i.e. by email, letter, social media)?

Email is fine.

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Senior Project Manager

City of Brantford

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Email: [NGhbn@brantford.ca](mailto:NGhbn@brantford.ca)

**Ron Scheckenberger M.Eng., P.Eng.**

Principal Consultant

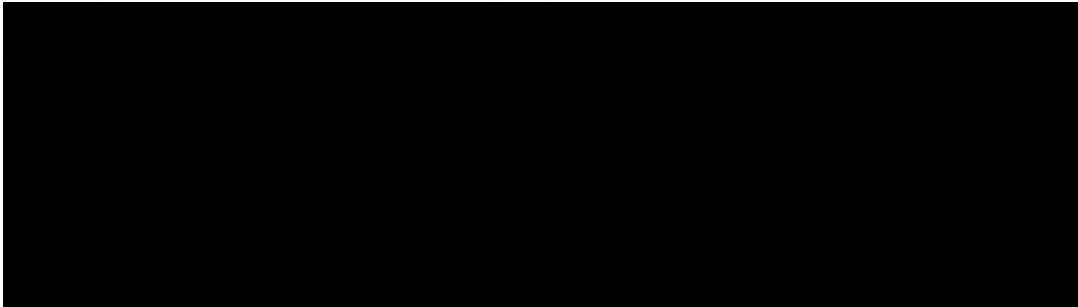
Wood Environment & Infrastructure Solutions

Tel: 905-335-2353

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	Importance			Why?
	Very	Somewhat	Not	
Quality of water for human use		X		Not consumable Swimming Limited
Quality of water for fish & wildlife habitat	✓			Wildlife + fish habitat Req'd for Balance + cleaning
Quality / quantity of water for recreation	✓			Opportunity for tourism, Relaxation for residents.
Aquatic habitat (fish, invertebrates)	✓			Habitat is important for filtering and cleaning water.
Terrestrial habitat (wildlife, birds)	✓			Plant and insect control Provided by wildlife & Birds
Vegetation	✓			Vegetation Essential for crossing Wildlife & Floodcontrol.
Flooding from streams and rivers		X		Need to invest in upstream Floodcontrols
Flooding from streets / sewers	✓			Full Review of crossover from sanitary to Storm sewers / Treat runoff.
Stream erosion & sediment accumulation	✓			Rem: drive to restrict erosion and thus reduce Sediment.

**Mohawk Lake and Mohawk Canal  
Cleanup and Rehabilitation Project  
Functional Master Drainage and Restoration Study  
Public Information Centre 1 – Wednesday June 5, 2019**

1. From the list of possible environmental issues and concerns commonly related to natural systems and function affected by urban uses, please identify which you consider important to the Mohawk Lake and Mohawk Canal Study and why.

	Importance			Why?
	Very	Somewhat	Not	
Quality of water for human use		✓		
Quality of water for fish & wildlife habitat	✓			<i>Species have adapted and used the lake/canal/park as it is.</i>
Quality / quantity of water for recreation		✓		
Aquatic habitat (fish, invertebrates)	✓			"
Terrestrial habitat (wildlife, birds)	✓			"
Vegetation	✓			"
Flooding from streams and rivers	✓			
Flooding from streets / sewers		✓		
Stream erosion & sediment accumulation		✓		

2. Do you have any other environmental issues or concerns related to the Mohawk Lake and Mohawk Canal Study Area?

Yes - we are park neighbours. A lot of wildlife/species/migratory/mating species use Mohawk Lake/Canal/Park as it is - it has overgrown and become "wild" despite contamination and degradation. Examples: mating pair Great Horned Owls, mating pair Red-Tailed Hawks, family of Cooper's Hawks → multi year basis.

3. What recommendations might you suggest to address your key issues or concerns?

Don't clear away too much, don't "fix" too much. Just clean up garbage, provide minimal safe access. We already walk the trails and canoe/kayak on the lake, canal + river. We ski on the lake, park, trails in winter. We walk + bike in the summer, spring, and fall.

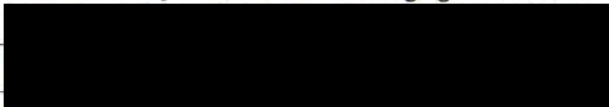
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See above for birds - mating pairs of raptors (Great Horned Owls, Red-tailed Hawks, Cooper's Hawks) - also we have observed/heard Indigo Buntings, Wood Thrushes, Rose-breasted Grosbeaks, Ospreys, Great Blue Herons, Common Terns, Coyotes, many Deer (white-tailed), Beavers, Bass, Painted Turtles, snapping Turtles, Bobcats, many Woodpeckers + Flickers, also wildflowers such as Trillium, Jack-in-the-Pulpit, Trout Lily, etc.

5. Which criteria or factors do you think the alternatives should be evaluated by?

Wildlife Habitat + Refuge. That is what makes the park such a wild, special place. Make it a somewhat more accessible but do not change the positives - wildlife has adapted to this place as it is now.

6. How do you want to be engaged in this Study (i.e. by email, letter, social media)?







# wood.

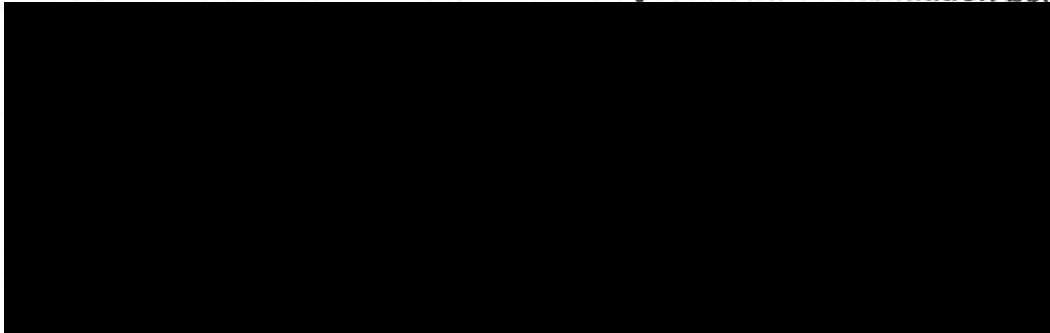
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Do you wish to be added to our *Project Mailing List* to be kept informed about the Study?

YES  / NO

**Thank you for taking the time to complete this comment sheet!**

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# Future of Mohawk Lake and Mohawk Canal

Tell us about your vision for the future of Mohawk Lake and Mohawk Canal! Based on 2015 Mohawk Lake visioning exercise, what aspects of the 2015 visioning do you want to highlight as the most important? What are the least important? Any additional ideas you want to add to this vision? (Use post-it notes to write your comments here)

DONT FORGET THE TOWPATH

Turn eastern-most end of Greenwich into part of Mohawk Park + get rid of road there.

If the bucks can be found dredge the lake put in a beach then lots of parking will be needed.

Most important is dredging and clean-up of water quality, to be fish + reptile and bird + sm. mammal friendly for a natural habitat and 'sanctuary'.

Least important is the 'over development' of Mohawk Lake, so that it doesn't become an artificial entertainment centre. It should be peace + quiet for two + four legged animals.

not necessary for information center

Keep parking as is to encourage more walking in the park.

A big concern is health + safety of the public in using Mohawk Lake + Park, as well as vandalism + the 'patrolling' protection of same.

- CLEAN IT UP
- INCREASE PUBLIC TRANSIT OPTIONS
- MAKE USE OF THE LAKE BY PUBLIC

Keep the lake "wild" and the surrounding lands / trails, as much as possible.

(\* COMMUNITY INVOLVEMENT \*)  
RECREATIONAL OPPORTUNITIES  
ie. canoeing  
Charity - DRAGON BOAT RACES

Continue to keep natural environment

HAVE A SAFE ACCESS TO LAKE FROM THE PARK

strict enforcement for dog walkers

increased police patrolling

work on invasive plant species

Keep natural habitat

## Problems and Opportunities

Tell us what you think about the draft Problem and Opportunity Statement!

(Use post-it notes to write your comments here)

Just get the fallen trees out of the West Canal so that nature can start the healing process

Would opening the canal back at the Grand River by the Civic Centre help with water flow and the movement of debris/sediment that has accumulated in the canal?

Rather Vague  
Opp. Statement.

How many people are expected to use "Festival" site.

What is geographical Division Between Survey Replies For/Against Festival ground  
Implications are VS Far extent of City

## Shams, Aniq

---

**From:** Felker, Bob  
**Sent:** Wednesday, June 19, 2019 6:03 PM  
**To:** [REDACTED]  
**Cc:** Nahed Ghbn; Kelly, Mary K; Shams, Aniq; Mcandrew, Louise; Scheckenberger, Ron; Stokke, Samantha  
**Subject:** RE: Wildlife, Mohawk Lake Brantford

Dear [REDACTED] was a pleasure meeting you at the June 5<sup>th</sup> Open House for the Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project. I'm glad you shared your wealth of information about the plants and animals you have observed in the Study Area. We will be taking this information into careful consideration as we move into the stage of the Environmental Assessment where we evaluate the alternatives to clean up and restore the lake and canal.

With respect to the study website on the City webpage, here is a [link](#) to the Functional Master Drainage and Restoration Study work we are doing as part of the overall Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project. I apologize that I may have misspoke about the findings from the Phase 1 Characterization Study being available online. My understanding is that this report is still in draft, and not yet released. When the report information on wildlife is available to the public, I will let you know.

Once again thank you for your involvement in the Study, and we hope you will continue to participate in future stages, especially the visioning exercises we have planned.

Sincerely,

Bob

### **Bob Felker**

Senior Environmental Planner  
900 Maple Grove Road  
Cambridge, ON, N3H 4R7  
Direct: +1 519 650 7139  
Mobile: +1 226 751 3854

**[www.woodplc.com](http://www.woodplc.com)**

[bob.felker@woodplc.com](mailto:bob.felker@woodplc.com)

[www.woodplc.com](http://www.woodplc.com)

**wood.**

**From:** [REDACTED]  
**Sent:** June-16-19 4:54 PM  
**To:** Felker, Bob <[bob.felker@woodplc.com](mailto:bob.felker@woodplc.com)>  
**Subject:** RE: Wildlife, Mohawk Lake Brantford

Hello Mr. Felker,

I met you at the open house for the Mohawk Lake environmental assessment on June 5, 2019.

I had provided you with a print copy of my flora and fauna sightings in 2018.

You said that there is an existing documentation of area wildlife, which I could access online.

I have not been able to find any documents pertaining to the planned environmental assessment. The website for the City of Brantford does not provide documents beyond a map; the former website for the Mohawk Lake rehabilitation project has disappeared.

Could you kindly send me the document you were referring to? I would greatly appreciate the opportunity to read it.

Attached is a pdf of my flora and fauna sightings from 2018. I've also taken the liberty to attach a copy of the cover of my book, just finished, Guide to Nature & Green Spaces in Brantford & Brant County, now available for sale (\$6.95, ebook, 60 pages including cover, full colour, original photographs).

Thanks for your assistance,



## Mohawk Canal and Lake Nature Report for 2018

By [REDACTED]

### Summary of Highlights:

- 1 fawn born this year
- Possibly 1 coyote pup born this year
- Over 60 species of birds seen, including two rare to the area species: Slaty-back Gull and Iceland Gull
- Two red tailed hawks have taken up residence in the Mohawk-Greenwich area, part of their territory includes the Mowhawk-Greenwich brownfield
- A mated pair of Wood Ducks successfully raised a small brood of chicks in a hollow tree in Mohawk Park this summer
- A mated pair of Great Horned Owls successfully raised at least 2 chicks (possibly 3) this summer in the Mohawk Park/Glebe area
- A mated pair of Cooper's Hawks successfully hatched 5 chicks this summer in Mohawk Park or very nearby (the chicks, accompanied often by 1 adult spent most of their time learning to hunt in the upper east quadrant of Mohawk Park, so presumably the nest was nearby)

### Findings:

3 separate pairs of Red Tailed Hawks have staked out a part of the Mohawk Canal/Lake area as part of their territory

While there were at least 5 Canada Goose nests created in the spring of 2018, all with eggs, the geese abandoned their nests, and I was not able to discern why. There were no goslings raised on the canal or lake in 2018, which is very unusual.

The Osprey successfully raised 2 chicks in 2018. The nest was not removed by Rogers earlier in the year and it was much easier to discern the chicks in the nest when they became larger. By the way, every August the Military Museum holds an open house, part of that day includes the firing of guns, large and small, which do disturb the Osprey noticeably during that event.

There are at least 2 pairs of Belted Kingfishers who claim the east and west ends of Mohawk Lake and Canal as part of their territory respectively.

I understand from a pair of reliable birders that at least one Eastern Screech Owl resides in Mohawk Park, possibly has a mate. I have not yet seen the screech owl (nor heard it), so it is not included on my list for 2018.

**Observation Area:** 8.93 kilometres total (including Mohawk Park).

### Frequency of monitoring:

Generally speaking, I regularly monitor the area from Murray Street to the eastern-most point where the canal continues once a week, sometimes several times a week (depending on time of year and my availability), a route of approximately 3 km. This ramble often (but not always) includes a walk on the train tracks. If one is to take the tracks to explore,

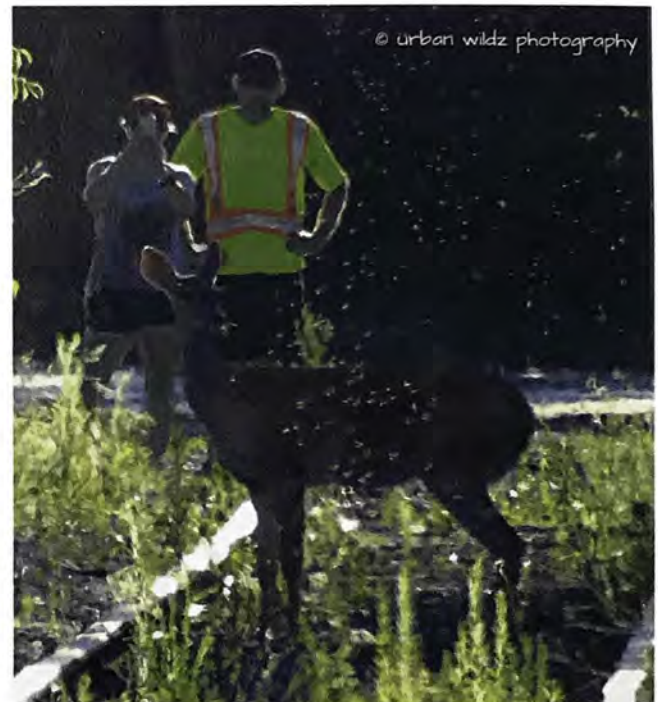
urban wildz photography



13. Osprey
14. Bald Eagle
15. Cooper's Hawk
16. Red Tailed Hawk
17. Killdeer
18. Yellowlegs (not sure if Greater or Lesser)
19. Ring Billed Gull
20. Herring Gull
21. Great Black-backed Gull
22. Caspian Tern
23. Rock Pigeon
24. Mourning Dove
25. Great Horned Owl
26. Belted Kingfisher
27. Red-bellied Woodpecker
28. Downey Woodpecker
29. Hairy Woodpecker
30. Northern Flicker
31. Least Flycatcher
32. Eastern Phoeble
33. Eastern Kingbird
34. Blue Jay
35. American Crow
36. Northern Rough Winged Swallow
37. Tree Swallow
38. Black Capped Chickadee
39. White Breasted Nuthatch
40. Brown Creeper
41. House Wren
42. Carolina Wren
43. Golden-crowned Kinglet
44. Unknown Thrush (hermit or wood, heard singing)
45. American Robin
46. Gray Catbird
47. European Starling
48. Cedar Waxwing
49. House Sparrow
50. Yellow Warbler
51. American Tree Sparrow
52. Chipping Sparrow
53. White-throated Sparrow
54. Song Sparrow
55. Dark-eyed Junco
56. Northern Cardinal
57. Rose-breasted Grossbeak
58. Indigo Bunting
59. Red-winged Blackbird
60. Common Grackle
61. Brown-headed Cowbird



*Adult and juvenile Yellowlegs, Greenwich Mohawk Brownfield, 2018.*



*A doe from the "Mohawk herd" of white tail deer. She was grazing along the tracks dividing the brownfield with her fawn, and panicked by my approach, the duo ran to the exit between Murray and Greenwich Streets. 2018.*

- Hornet
- Grasshopper
- Bumblebee
- Eastern Amberwing Dragonfly

**Plants:**

- Golden Rod
- Bullrush
- Lilac
- Wild Grape
- Sumac (Staghorn)
- Aster
- Milkweed
- Deadly Nightshade
- Virginia Creeper
- Alder
- Willow
- Garlic Mustard
- Phragmites (quite a lot)
- Common Tansy
- Black-eyed Susan
- Purple Loosestrife
- Yellow Iris
- Catalpa
- Queen Anne's Lace
- Teasels
- Chicory
- Hackberry Tree



*A small number of Eastern Amberwing Dragonflies were found along the shores of Mohawk Lake in the summer of 2018.*



*An Orange-striped Bumblebee seen on Golden Rod blossoms in the fall of 2018 in the Greenwich Mohawk Brownfield.*





## **Indigenous Consultation**

## Shams, Aniq

---

**From:** Sarah Hewitt <SHewitt@brantford.ca>  
**Sent:** Friday, October 18, 2019 3:04 PM  
**To:** weylinbomberry@sixnations.ca  
**Subject:** Mohawk Lake & Mohawk Canal Cleanup and Rehabilitation Project  
**Attachments:** Mohawk\_SNGRLetterOct2019.pdf

Good afternoon Mr. Bomberry,

As per our earlier conversation, please find attached a copy of the Mohawk Lake & Mohawk Canal Cleanup and Rehabilitation Project letter sent to Chief Ava Hill earlier today.

Thanks,  
Sarah.

---

**Sarah Hewitt**  
**Administration & Customer Service**  
**Public Works Commission**  
**City of Brantford**  
Phone: 519-759-4150 Ext. 5114  
Email: [shewitt@brantford.ca](mailto:shewitt@brantford.ca)  
P.O. Box 818 • Brantford, Ontario • N3T 5R7 • [www.brantford.ca](http://www.brantford.ca)



## Shams, Aniq

---

**From:** Sarah Hewitt <SHewitt@brantford.ca>  
**Sent:** Friday, October 18, 2019 2:53 PM  
**To:** Ava Hill (avahill@sixnations.ca)  
**Subject:** Mohawk Lake & Mohawk Canal Cleanup and Rehabilitation Project  
**Attachments:** Mohawk\_SNGRLetterOct2019.pdf

Good afternoon Chief Hill,

Please find attached a copy of the letter sent to you today via Canada Post in regards to the Mohawk Lake & Mohawk Canal Cleanup and Rehabilitation Project.

Thanks,  
Sarah.

---

**Sarah Hewitt**  
**Administration & Customer Service**  
**Public Works Commission**  
**City of Brantford**  
Phone: 519-759-4150 Ext. 5114  
Email: [shewitt@brantford.ca](mailto:shewitt@brantford.ca)  
P.O. Box 818 • Brantford, Ontario • N3T 5R7 • [www.brantford.ca](http://www.brantford.ca)



## Shams, Aniq

---

**From:** Sarah Hewitt <SHewitt@brantford.ca>  
**Sent:** Friday, October 18, 2019 2:37 PM  
**To:** weylinbomberry@sixnations.ca  
**Subject:** PIC Notice - Mohawk Lake and Mohawk Canal Rehabilitation Project  
**Attachments:** PICNotice\_Mohawk Lake Rehabilitation Project.pdf

Good afternoon Mr. Bomberry,

Please find attached the notice for the second Public Information Centre (PIC) for the Mohawk Lake and Mohawk canal Rehabilitation Project that you should have received last week. Thank you for providing your correct email address, and apologies for the delay in receiving the notice.

The PIC will be held on Wednesday October 23rd from 5:00 pm to 7:00-pm at Mohawk Park Pavilion, 51 Lynnwood Drive, Brantford.

Thanks,  
Sarah.

---

**Sarah Hewitt**

**Administration & Customer Service**

**Public Works Commission**

**City of Brantford**

Phone: 519-759-4150 Ext. 5114

Email: [shewitt@brantford.ca](mailto:shewitt@brantford.ca)

P.O. Box 818 • Brantford, Ontario • N3T 5R7 • [www.brantford.ca](http://www.brantford.ca)





April 26, 2019

Mississaugas of the Credit First Nation  
6 First Line Rd., R.R. #6  
Hagersville, ON N0A 1H0

Attn: Fawn Sault, Consultation Manager

**RE: Notice of Study Commencement  
Municipal Class Environmental Assessment Study  
Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project –  
Functional Master Drainage and Restoration Study**

---

Dear Ms. Fawn Sault,

The City of Brantford (the City) has initiated a Municipal Class Environmental Assessment (Class EA) for Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project – Functional Master Drainage and Restoration Study (the Study). The City has retained Wood Environment & Infrastructure (Wood) to undertake this Class EA Study.

The City has received direction from the Provincial Crown that the Mississaugas of the Credit First Nation may have an interest in learning more about the Class EA Study. The City is committed to involving stakeholders and Indigenous groups in the Class EA Study. The Provincial Crown has delegated the procedural aspects of the Duty to Consult to the City. For information, the City has attached a summary of the Class EA Study and the Notice of Commencement. Please feel free to share this information within your community as you feel appropriate.

We are interested in understanding any interests or questions the Mississaugas of the Credit First Nation may have about the Class EA Study and if there is a potential for the Class EA Study to affect Aboriginal and Treaty rights. We are also interested to know if there are any sites of cultural significance to your community, within, or near the study area. The City welcomes the opportunity to meet with you and your community to provide more information about the Class EA Study and discuss any interests or questions you may have.

You will be contacted by one of the project representatives below:

**Nahed Ghbn, P.Eng.**  
Senior Project Manager  
City of Brantford  
Tel: 519-759-4150 ext. 5262  
Email: [NGhbn@brantford.ca](mailto:NGhbn@brantford.ca)

**Mary Kathryn Kelly, B.Sc.**  
Indigenous Relations and Partnerships Lead  
Wood Environment & Infrastructure Solutions  
Tel: (705) 493-9393  
Email: [mary.k.kelly@woodplc.com](mailto:mary.k.kelly@woodplc.com)



We will contact you by telephone in the near future to determine your interest in a potential meeting. Please do not hesitate to contact me if you have any questions or concerns.

Sincerely,

Yours truly,

A handwritten signature in blue ink that reads "Wendy Teufel".

**Wendy Teufel**  
**Manager, Design and Construction**

cc:

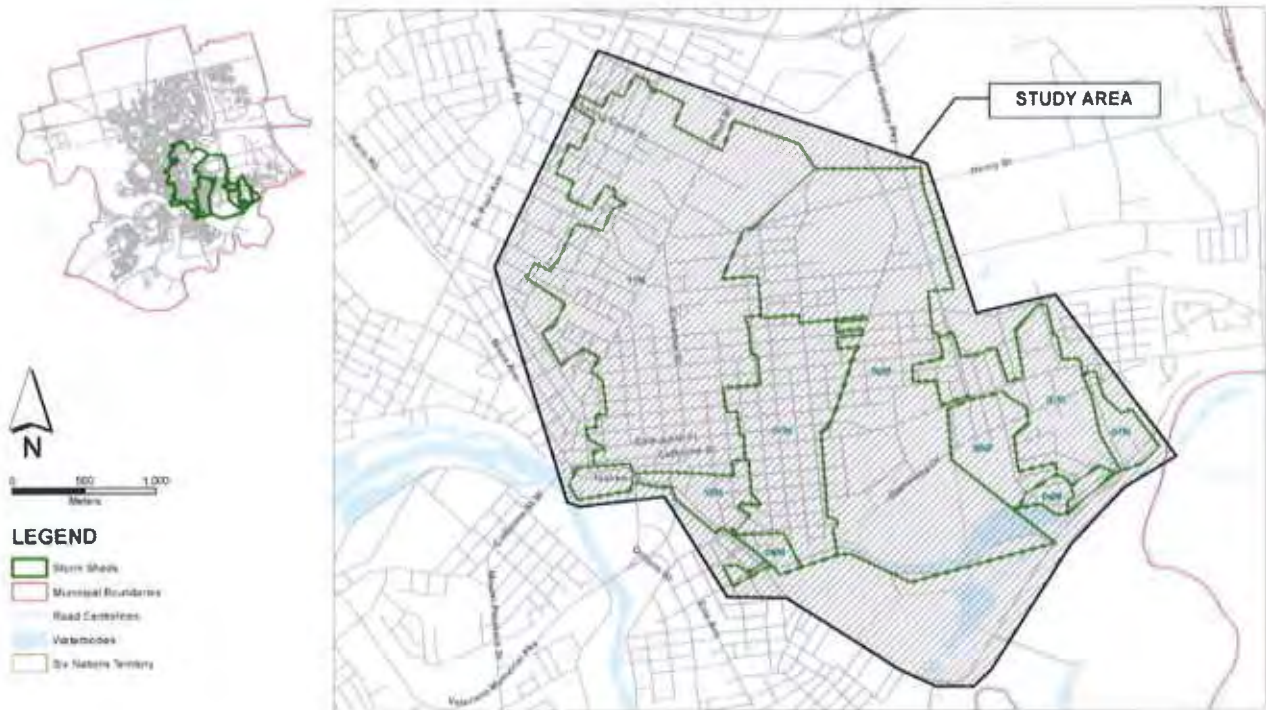
E. (Beth) Goodger, General Manager, Public Works Commission  
Russ Loukes, P. Eng., Director, Engineering Services  
Nahed Ghbn, P. Eng., Senior Project Manager, Engineering Services  
Ron Scheckenberger P. Eng., Wood  
Bob Felker BES, MCIP, RPP, Wood  
Mary Kelly B.Sc., Wood

Encl: Project Information Sheet, Notice of Commencement

# Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project - Functional Master Drainage and Restoration Study (City of Brantford)

## Project Background

The City of Brantford (the City) initiated the Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project to understand the current conditions within the Study Area (identified below) and establish / assess opportunities / recommendations to improve environmental quality and to protect and enhance Study Area features. While industrial discharges have been discontinued and cleanup has occurred on brownfield lands, the lake and canal's sediment and water quality have been impacted by these industrial activities as well as stormwater runoff.



The Rehabilitation project is being conducted as the following-step process:

### 1. Characterization Study

The Characterization Study documents the current environmental conditions of the lake and canal, which will support the development of improvement measures. This work is underway under a separate contract and expected to be completed in early 2019.

### 2. Subwatershed Stormwater Plan

The Subwatershed Stormwater Plan will focus on the tributary basin's runoff (quantity / quality) aimed at understanding the current water resources of the Mohawk Lake and Mohawk Canal, as well as the future watershed system (based on intensified land uses).

### 3. Mohawk Lake and Mohawk Canal Master Plan

The Master Plan will define management and restoration activities associated with environmental protection needs and related future park uses.

### 4. Class Environmental Assessment (Class EA) Report

The Class EA to be carried out in accordance with provincial legislative requirements

### 5. Design and Construction of the Cleanup and Remedial Work

This is a future step that will implement the recommended activities, the preferred improvement alternatives, determined in Steps 2 and 3.

The Functional Master Drainage and Restoration Study (Study) includes steps 2, 3 and 4 identified above. The City has retained Wood Environment & Infrastructure Solutions (Wood) to complete this work.

#### **Class Environmental Assessment**

The Study will follow a Schedule 'B' Municipal Class EA process that will take input from the Characterization Study and Subwatershed Study Stormwater Plan, to form the basis for the evaluation of a set of management and restoration practices for the Mohawk Lake and Mohawk Canal.

The purpose of this Class EA Study is to:

- Confirm the need for improvements;
- Determine improvement alternatives; and
- Evaluate alternatives and identify the preferred improvement plan.

The Class EA planning process helps identify potential effects of proposed projects. Each of the proposed alternatives are assessed against baseline conditions to determine the potential effects, and where necessary, identify mitigation measures. From these alternatives, a preferred alternative (s) will be identified.

A Class EA and Master Plan are a decision-making and planning process that allows for systematic assessment of alternatives and stakeholder engagement. A key component of this Study is to engage with regulatory agencies, stakeholders and Indigenous groups.

#### **Schedule and Next Steps**

- Public Information Sessions tentatively planned for spring and fall 2019.
- Project File Report and Master Plan Report, planned for filing on the Public Record in late 2019.

#### **Contact Information**

##### **City of Brantford**

Nahed Ghbn, P.Eng.  
Senior Project Manager  
100 Wellington Square  
Brantford, ON N3T 5R7  
519-759-4150 ext. 5262  
[NGhbn@brantford.ca](mailto:NGhbn@brantford.ca)

##### **Wood**

Ron Scheckenberger M.Eng., P.Eng.  
Principal Consultant  
3450 Harvester Road, Suite 100  
Burlington, ON L7N 3W5  
905-335-2353  
[ron.scheckenberger@woodplc.com](mailto:ron.scheckenberger@woodplc.com)





April 26, 2019

Six Nations of the Grand River  
2498 Chiefswood Road, P.O. Box 5000  
Ohsweken, ON N0A 1M0

Attn: Ava Hill, Chief

**RE: Notice of Study Commencement  
Municipal Class Environmental Assessment Study  
Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project –  
Functional Master Drainage and Restoration Study**

---

Dear Chief Ava Hill,

The City of Brantford (the City) has initiated a Municipal Class Environmental Assessment (Class EA) for Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project – Functional Master Drainage and Restoration Study (the Study). The City has retained Wood Environment & Infrastructure Solutions (Wood) to undertake this Class EA Study.

The City has received direction from the Provincial Crown that Six Nations of the Grand River may have an interest in the Class EA Study. The City is committed to involving stakeholders and Indigenous groups in the Class EA Study. The Provincial Crown has delegated the procedural aspects of the Duty to Consult to the City. For information, the City has attached a summary of the Class EA Study and the Notice of Commencement. Please feel free to share this information within your community as you feel appropriate.

We are interested in understanding any interests or questions Six Nations of the Grand River may have about the Class EA Study and if there is a potential for the Class EA Study to affect Aboriginal and Treaty rights. We are also interested to know if there are any sites of cultural significance to your community, within, or near the study area. The City welcomes the opportunity to meet with you and your community to provide more information about the Class EA Study and discuss any interests or questions you may have.

You will be contacted by one of the project representatives below:

**Nahed Ghbn, P.Eng.**  
Senior Project Manager  
City of Brantford  
Tel: 519-759-4150 ext. 5262  
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Indigenous Relations and Partnerships Lead  
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Email: [mary.k.kelly@woodplc.com](mailto:mary.k.kelly@woodplc.com)



We will contact you by telephone in the near future to determine your interest in a potential meeting. Please do not hesitate to contact me if you have any questions or concerns.

The City of Brantford is committed to ensuring adequate and appropriate consultation occurs where required and, to that end, with all members and groups of the Six Nations of the Grand River. As such, all inquiries and consultation with the Six Nations of the Grand River concerning this project will be directed through the Consultation and Accommodation Process (CAP) Team established by the Six Nations Elected Council to carry out the process of consultation and accommodation in accordance with the Consultation & Accommodation Policy.

Sincerely,

Yours truly,

A handwritten signature in blue ink, appearing to read "W. Teufel".

**Wendy Teufel**  
**Manager, Design and Construction**

cc:

Todd E. Williams, Haudenosaunee Development Institute (HDI), representing the Haudenosaunee Confederacy Chiefs Council  
W. Paul General, Six Nations of the Grand River  
E. (Beth) Goodger, General Manager, Public Works Commission  
Russ Loukes, P. Eng., Director, Engineering Services  
Nahed Ghbn, P. Eng., Senior Project Manager, Engineering Services  
Ron Scheckenberger P. Eng., Wood  
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Encl: Project Information Sheet, Notice of Commencement

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#### **Contact Information**

##### **City of Brantford**

Nahed Ghbn, P.Eng.  
Senior Project Manager  
100 Wellington Square  
Brantford, ON N3T 5R7  
519-759-4150 ext. 5262  
[NGhbn@brantford.ca](mailto:NGhbn@brantford.ca)

##### **Wood**

Ron Scheckenberger M.Eng., P.Eng.  
Principal Consultant  
3450 Harvester Road, Suite 100  
Burlington, ON L7N 3W5  
905-335-2353  
[ron.scheckenberger@woodplc.com](mailto:ron.scheckenberger@woodplc.com)

wood.



# Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project

**Project Update**  
**October 2019**



# Outline

---

1. Introduction
2. Background & Study Overview
3. Community Needs & Visioning
4. Alternative Remediation Alternatives / Evaluation Criteria
5. Discussion & Action Items



# Introduction



# Introduction:

## Study Purpose

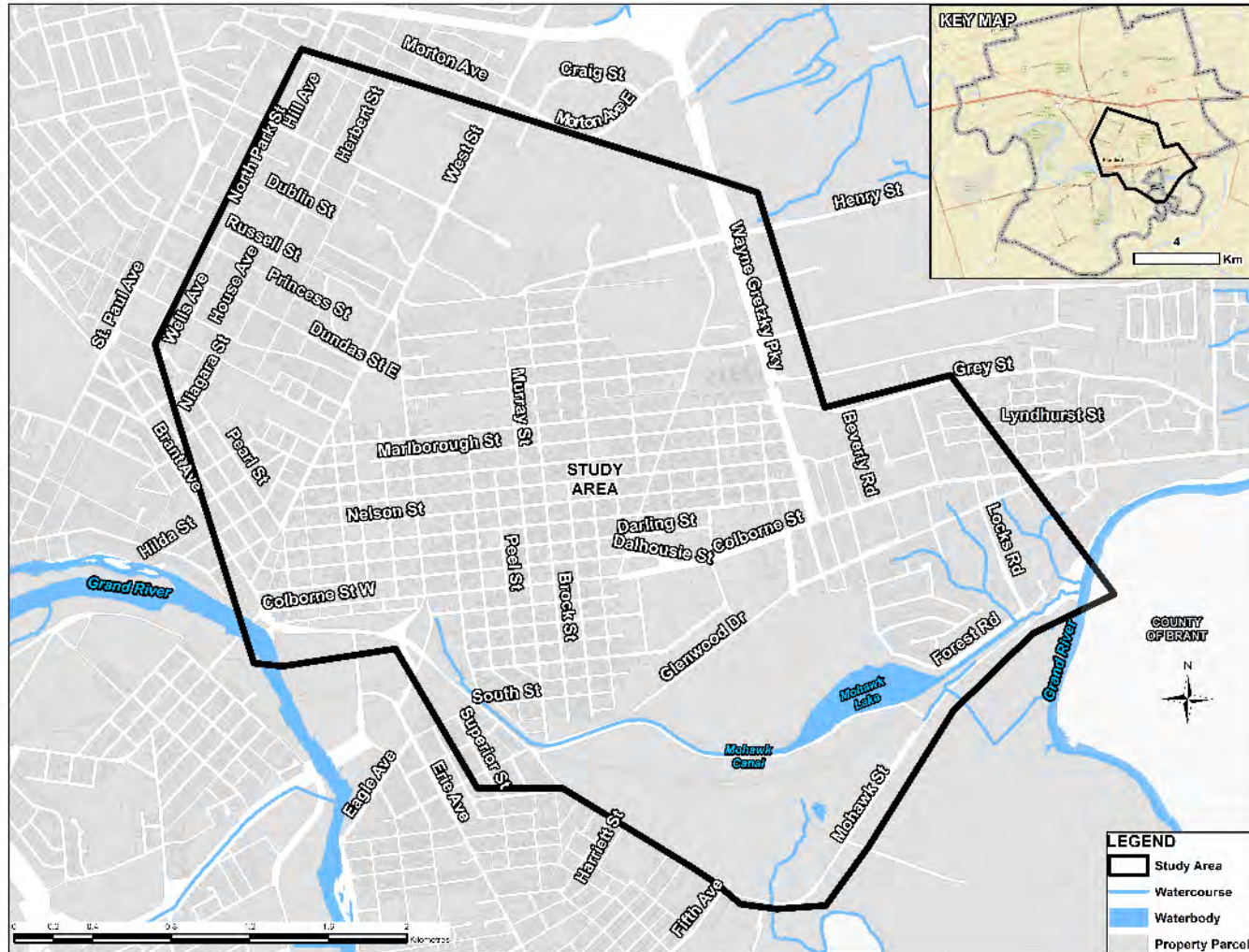
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- **The purpose of the Study is to consider ways to improve the environmental quality of Mohawk Lake and Mohawk Canal by providing:**
  - Improved water quality conditions
  - Enhanced recreational opportunities
  - Enhanced fish & wildlife habitat
- **Potential benefits that remediation and restoration can provide to Mohawk Lake and Mohawk Canal may include:**
  - Improved aquatic & wildlife habitat
  - Protection & interpretation of cultural heritage resources
  - Opportunities for water recreation





# Introduction: Study Area



# Background & Study Overview



# Background & Study Overview:

## Historical Overview

- Mohawk Lake was constructed in the 1800's as part of a canal system to provide access for barges traveling through Brantford and to enable the barges to turn around
- In the early 1900s, the lake and the surrounding parkland provided the community with recreational opportunities for residents and continues to offer valuable natural heritage for the City
- For decades, concern has been expressed about the deteriorating environmental conditions in the lake and canal
- As early as 1950, studies were conducted to improve the flow and to address siltation issues in the lake and canal
- The *Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project* was in part initiated in response to these concerns



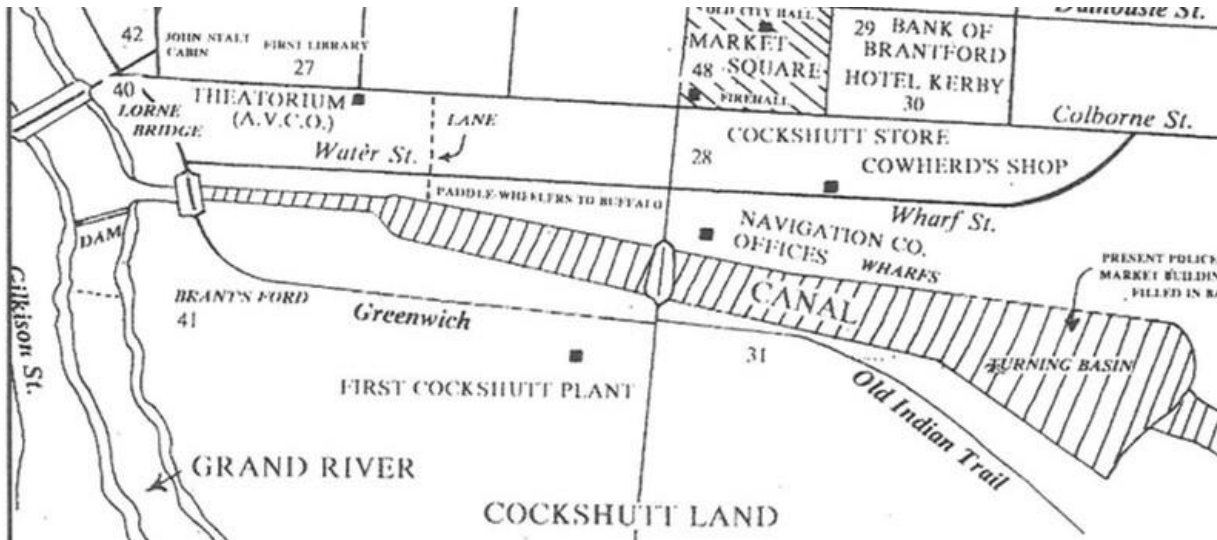
# Background & Study Overview:

## Historical Connection with the Grand River

- Grand River Navigation Canal
  - Previously connected Grand River at upstream limits to Mohawk Lake
  - Provided turning basin for boats
  - Eventually the canal was abandoned/filled but diversion sluice gate remained with buried pipeline?



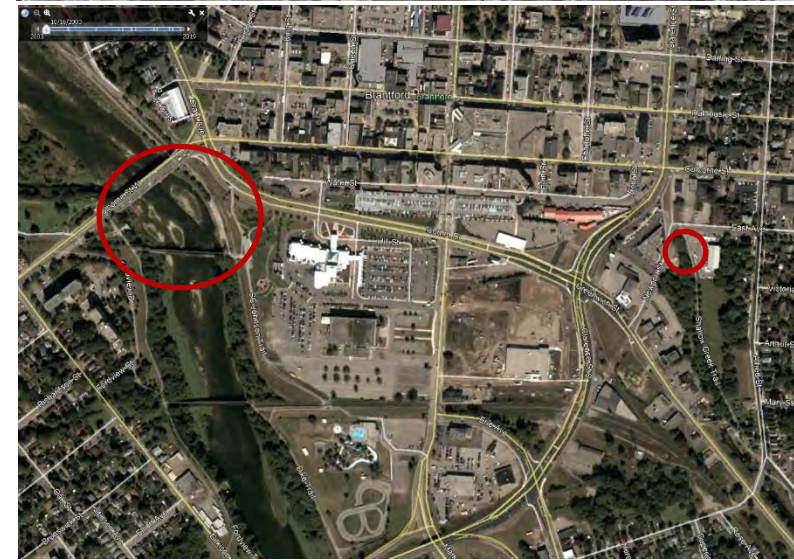
*Remnant Of The Past – This is all that remains of the Grand River Navigation Canal which once flowed from the river, north of Greenwich Street, to Mohawk Lake. The sluice gate allows water to run through a buried pipeline to Mohawk Lake, whenever the river rises.*



# Background & Study Overview:

## Historical Connection with the Grand River

- Historical Air Photos
  - Historical air photos show the upstream dam structure between Colborne Street and Dike Trail (1955, 1965, 1971, 1976, 1981, 1986)
  - No watercourse evident in any of the photos
  - Status of any pipeline unknown
- Dam is not evident in Google Earth 2003 images
  - Unclear as to exact date of removal or rationale
  - Status of pipeline unknown



# Background & Study Overview:

## Timeline

---

**1800s**

**Mohawk Lake and Mohawk Canal Constructed**

- Part of the canal system to provide access for barges traveling through Brantford and to enable the barges to turn around

**Early 1900s**

**Recreational Area**

- The lake and the surrounding parkland provided the community with recreational opportunities

**1950s**

**Early Cleanup Studies**

- Conducted to improve the flow and to combat the silting problems in the lake and canal

**1980s**

**Mohawk Canal Disconnected from Grand River**

- Inflow from the Grand River diverting flow to the canal was disconnected with the removal of a dam

**2015**

**Visioning for Mohawk Lake**

- Visioning workshops provided the basis for a vision statement and work plans to address the clean-up

**2018 (in progress)**

**Characterization Study**

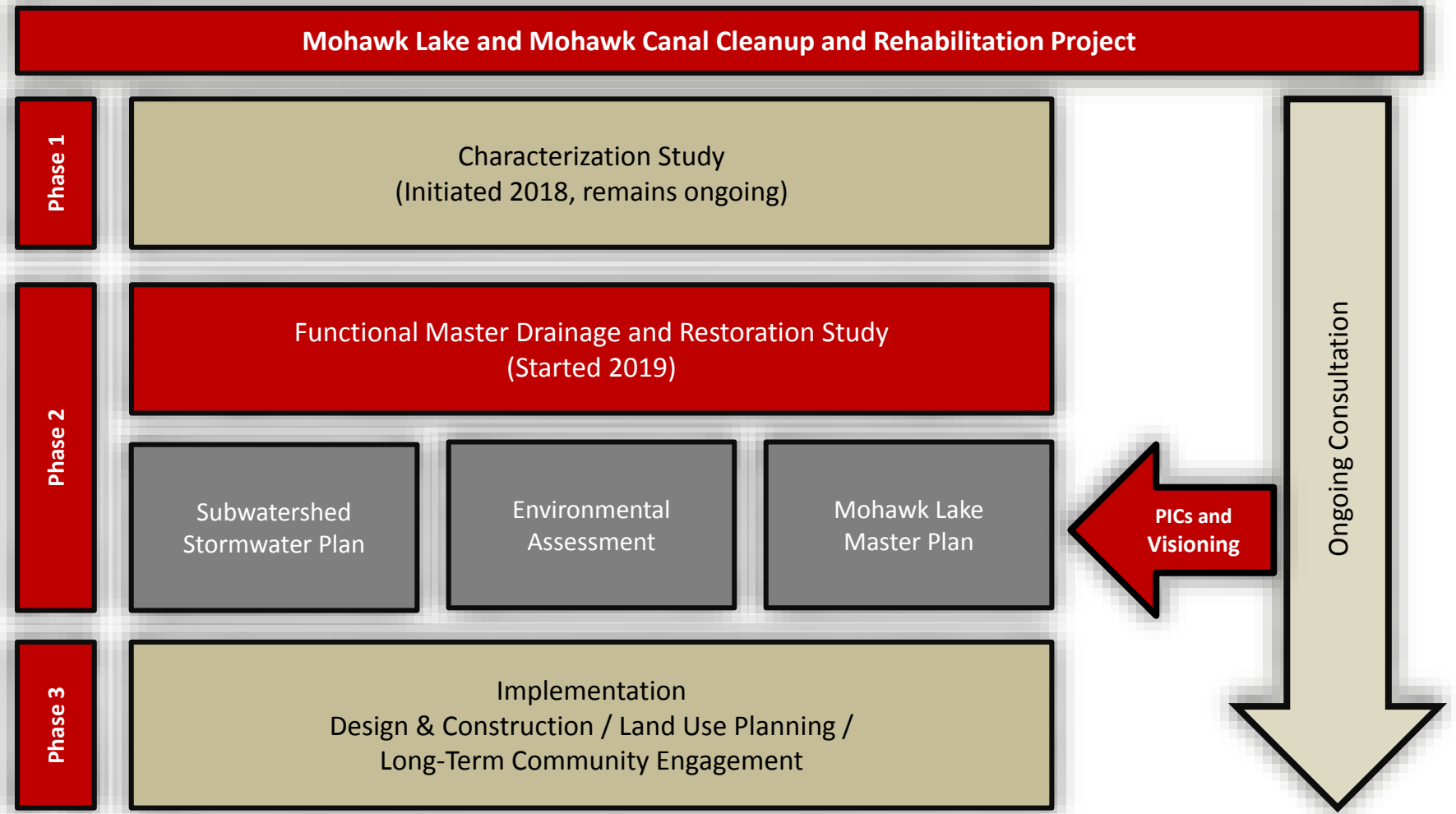
- Study to define the current (baseline) environmental conditions to support future rehabilitation measures

**2019 (in progress)**

**Functional Master Plan Drainage and Restoration Study**

- Study to define actions to enhance recreational opportunities, fish & wildlife habitat and improve water quality conditions

# Background & Study Overview: Process & Phases



# Background & Study Overview:

## Process & Phases

### Subwatershed Study

- Recommend actions to maintain, restore or enhance the health of the Mohawk Lake subwatershed
- Assess potential alternatives to identify a preferred subwatershed protection and restoration strategy
- Define environmental requirements such as design criteria and targets, priority phasing, mitigation measures, implementation and monitoring plans

### Environmental Assessment

- Consider all aspects of the environment: physical, natural, social, cultural and economic, including cost/benefit analyses
- Consult throughout the process
- Define the problem and opportunity
  - Identify, develop and evaluate potential remediation options
- Identify, develop and evaluate potential remediation options
- Document the selection of the Preferred Remedial Option(s)

### Mohawk Lake Master Plan

- Develop a long range plan that integrate infrastructure requirements for existing and future land use with environmental assessment planning principles, and:
  - Looks beyond the infrastructure and remediation components
  - Considers land use and park use policy direction
  - Translates community vision into actions and commitments, including long-term engagement

### Community Engagement/ Project Management

- Communication and Engagement Plan

- PIC 1
- PIC 2

- Workshops
- Meetings





# Background & Study Overview: Process & Phases

## Municipal Class Environmental Assessment, Schedule B



# Community Needs & Visioning



# Community Needs & Visioning

## Community Engagement Findings

- Past Engagement:
  - Reviewed information from Mohawk Lake Working Group (2014 & 2015), Mohawk Lake District Plan (information available from 2018) and this project's PIC #1
- Future Engagement:
  - TM#5 will be updated based on the findings from PIC #2 and related engagement (i.e., Mississaugas of the Credit First Nation and Six Nations of the Grand River)
- Community Vision:
  - Vision statement from Mohawk Lake Working Group (2015) and Mohawk Lake District Plan (Ongoing) was reviewed.
  - A revised and updated vision statement will be determined for this project through engagement.
- Potential Recreational / Cultural Uses:
  - Boat; Fish; Canoe; Hike; Walk; Ice Skate; Bike; Picnic
  - Community / Charity events and festivals, such as Dragon Boat Races
  - Education and research opportunities for students, specifically based on the natural and cultural environment / history of Mohawk Canal, Six Nations of the Grand River, and Brantford's industrial heritage
  - Dances and concerts
- Summary of Identified Priorities:
  - Enhance the landscape for fish, wildlife, birds and vegetation
  - Preference not to significantly alter the landscape for human activities
  - Improve recreational opportunities, while maintaining the natural beauty of the area



# Community Needs & Visioning: Long-Term Engagement Plan

---

## Table of Contents (Draft)

- **Introduction**
- **Scope and Administration**
  - Roles and Responsibilities (i.e., City, Community Stakeholders / Indigenous Communities)
  - Communication and Engagement activities
  - Adaptive Management
- **Design Phase**
  - Inform (e.g., educate using interactive boards/ plaques throughout park, sculpture etc.)
  - Engage (e.g., advisory committee, workshops, community meetings, surveys, social media)
- **Construction Phase**
  - Pre-Construction (e.g., Notices for Groundbreaking Ceremony and potential Indigenous ceremonies such as Sunrise or Water)
  - During Construction (e.g., website / e-newsletter; community events (BBQ's, plantings etc.); notices; complaints procedure)
  - Construction Completion (e.g., communication, Notices for Ribbon cutting ceremony)
- **Post Construction Phase**
  - Five-Year Review (e.g., Community survey / Next steps)



# Remediation Alternatives / Evaluation Criteria



# Remediation Alternatives / Evaluation Criteria: Alternatives

---

Three main management approaches have been identified, and alternatives evaluated at a high level:

## 1. Mohawk Lake & Mohawk Canal Remediation

- *Sediment Removal from Lake*
- *Shoreline/Edge Treatment of lake perimeter*
- *Natural Channel Design of Canal*

## 2. Subwatershed Management

- *Source/Conveyance Control (Public/Private)*
- *End-of-pipe (Retrofits)*

## 3. Other

- *Street sweeping*
- *Public Education*
- *Recirculation/Re-connection with Grand River*



# Remediation Alternatives / Evaluation Criteria: Mohawk Lake and Canal Remediation

- In-Lake/In-Canal Restoration
  - Address issues of water and sediment quality within Mohawk Lake and Mohawk Canal
- Alternatives:
  1. Drawdown/Pumpdown and Mechanical Dredging
  2. Hydraulic Dredging
  3. Sediment Management – Physical Capping
  4. Sediment Management – Chemical Capping and Nutrient Inactivation
  5. Revegetation of Riparian Areas and Tributary Streams
  6. Watercourse Restoration (Mohawk Canal)
  7. Living Shorelines, Shoreline/Riparian Restoration, Shoreline Softening (Mohawk Lake)



Dredging Activities – From Land



Shoreline Restoration Activities

# Remediation Alternatives / Evaluation Criteria: Subwatershed Management

- Subwatershed Management Strategies
  - Address issues related to stormwater runoff quantity and quality that inflows to Mohawk Lake and Mohawk Canal
- Structural BMP Retrofits
  - Projects involving the installation of physical systems to provide mechanical, biological, or chemical control of the target water quality pollutant
- Long list of Alternatives:
  1. Upflow Media Filtration
  2. Baffle Boxes
  3. Eliminate Cross-Connections
  4. Wetland Treatment
  5. Infiltration/Exfiltration BMPs
  6. Modular Wetlands
  7. Offline Alum Polymer Treatment
  8. Bioreactor Walls and Beds
  9. Bioretention
  10. Permeable Concrete/Pavement
  11. Stormwater Wet/Irrigation Ponds
  12. Energy Dissipaters
  13. Grassed swales, Bioswales
  14. Stormwater Inlet Treatment
  15. Oil/Grit and Hydrodynamic Separators



**Stormwater  
Management**





# Remediation Alternatives / Evaluation Criteria: Subwatershed Management

---

- Source/Conveyance Controls

- |                                   |                                 |
|-----------------------------------|---------------------------------|
| 1. Upflow Media Filtration        | 10. Permeable Concrete/Pavement |
| 2. Baffle Boxes                   | 12. Energy Dissipaters          |
| 5. Infiltration/Exfiltration BMPs | 13. Grassed swales, Bioswales   |
| 8. Bioreactor Walls and Beds      | 14. Stormwater Inlet Treatment  |
| 9. Bioretention                   |                                 |

- End of Pipe Controls

- |                      |  |
|----------------------|--|
| 4. Wetland Treatment | 11. Stormwater Wet/Irrigation Ponds      |
| 6. Modular Wetlands  | 15. Oil/Grit and Hydrodynamic Separators |

- Other

- |                                |                                   |
|--------------------------------|-----------------------------------|
| 3. Eliminate Cross-Connections | 7. Offline Alum Polymer Treatment |
|--------------------------------|-----------------------------------|



# Remediation Alternatives / Evaluation Criteria: Other

- Subwatershed Management Strategies
  - Non-Structural BMPs
- Alternatives
  1. Public Education/Outreach
  2. Street Sweeping
  3. Recirculation/Re-connection with Grand River



# Remediation Alternatives / Evaluation Criteria:

## Criteria



**Natural Environment**

- Water Quality (Chem. & Temp.)
- Water Quality
- Natural Heritage (Habitat, Wetlands and SAR)
- Fluvial
- Geomorphology
- Geology, Hydrogeology, and Groundwater



**Economic Environment**

- Capital Cost
- Contaminant Management Cost
- Maintenance Cost
- Utilities Impacts
- Property Acquisition



**Social/Cultural Environment**

- Cultural Heritage and Archaeology
- Future Land Use and Growth Impacts
- Hydraulics - Flooding



**Technical Environment**

- Stormwater Management
- Hydrology
- Constructability
- Community Resilience and Sustainability

# Remediation Alternatives / Evaluation Criteria

## Preliminary Preferred Alternatives

---

- Preliminary Preferred Alternatives provided for discussion purposes – not yet formally analyzed or assessed

### A. Mohawk Lake and Canal Remediation

1. Sediment Removal
  - Hydraulic Dredging considered preferred approach (minimize disturbance)
2. Shoreline Restoration
  - Plantings and re-grading
3. Natural Channel Design
  - Fluvial enhancements



# Remediation Alternatives / Evaluation Criteria

## Preliminary Preferred Alternatives

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- Preliminary Preferred Alternatives provided for discussion purposes – not yet formally analyzed or assessed

### **B. Subwatershed**

1. Source/Conveyance Controls
  - Roadway reconstructions (Public)
  - Redevelopment (Private)
2. End-of-Pipe (Retrofits)
  - Smaller more urban drainage systems
  - Public land availability
3. Other
  - Disconnection of Cross-Connections



# Remediation Alternatives / Evaluation Criteria

## Preliminary Preferred Alternatives

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- Preliminary Preferred Alternatives provided for discussion purposes – not yet formally analyzed or assessed

### C. Other

1. Street Sweeping
  - Potential to enhance in subwatershed
2. Public Education
  - Avoid discharging pollutants to storm drainage system
3. Reconnection with Grand River considered screened
  - Grades are not physically viable for a gravity pipe
  - Pumping not cost effective given magnitude of flow required
  - Negative impacts associated with lowering Mohawk Lake (reduced footprint, additional sediment removal, etcetera)

# Discussion & Action Items



## Shams, Aniq

---

**From:** Kelly, Mary K  
**Sent:** Monday, October 28, 2019 8:58 PM  
**To:** Fawn Sault; Mark LaForme  
**Cc:** Nahed Ghbn (nghbn@brantford.ca); Scheckenberger, Ron; Shams, Aniq  
**Subject:** RE: City of Brantford - Mohawk Lake and Mohawk Canal Functional Master Drainage and Restoration Study  
**Attachments:** 201910\_IndigenousInformationSharing\_Final.pdf

Good afternoon Fawn,

As a follow-up to our communications, I've attached the presentation we intended to share at our October meeting that was postponed (wishing you a speedy recovery). Per your direction I have included Mark LaForme on this email.

Further information, including poster boards from the two public information centres, is available on the City's website: <https://www.brantford.ca/en/your-government/mohawk-lake-and-mohawk-canal-cleanup-and-rehabilitation-project.aspx>

If you should have any questions or wish to discuss please do not hesitate to let us know.

Cheers, Mary

---

**From:** Kelly, Mary K  
**Sent:** Tuesday, August 13, 2019 3:37 PM  
**To:** Fawn Sault <Fawn.Sault@mncfn.ca>  
**Cc:** Nahed Ghbn (nghbn@brantford.ca) <nghbn@brantford.ca>; Scheckenberger, Ron <ron.scheckenberger@woodplc.com>; Senior, Matt <matt.senior@woodplc.com>; Felker, Bob <bob.felker@woodplc.com>; Shams, Aniq <aniqa.shams@woodplc.com>  
**Subject:** City of Brantford - Mohawk Lake and Mohawk Canal Functional Master Drainage and Restoration Study

Good afternoon Fawn,

Thanks so much for the chat today. As discussed, you are interested in meeting in October to discuss the alternatives, visioning and long-term engagement associated with the City of Brantford's Mohawk Lake and Mohawk Canal Functional Master Drainage and Restoration Study.

I will reach out to the team and share some potential dates for a meeting.

If you do have questions please do not hesitate to reach out at any time. Cheers, Mary

**Mary Kathryn Kelly, B.Sc.**

Indigenous Relations & Partnerships Lead / Senior Human

Environment Consultant

Direct/Mobile: 705-493-9393

[mary.k.kelly@woodplc.com](mailto:mary.k.kelly@woodplc.com)

[www.woodplc.com](http://www.woodplc.com)



**wood.**



October 18, 2019

Six Nations of the Grand River  
2498 Chiefswood Road, P.O. Box 5000  
Ohsweken, ON NOA 1M0

Attn: Ava Hill, Chief

**RE: Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project –  
Functional Master Drainage and Restoration Study  
Municipal Class Environmental Assessment Study**

---

Dear Chief Ava Hill,

In April 2019, the City shared that it had initiated a Municipal Class Environmental Assessment (Class EA) for the Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project - Functional Master Drainage and Restoration Study (the Study). The City has retained Wood Environment & Infrastructure Solutions (Wood) to undertake this Class EA Study.

We have spoken with Weylin Bomberry and he has advised that he would like to receive updates via email, and that if there are any questions or comments that he will advise. To provide an update of where the City is at in the Study, we have attached a Project Update information package. If there are comments or an interest in meeting, the City would welcome this.

We will contact you by telephone soon to confirm receipt. Please do not hesitate to contact us if you have any questions or concerns.

You will be contacted by one of the project representatives below:

**Nahed Ghbn, P.Eng.**  
Senior Project Manager  
City of Brantford  
Tel: 519-759-4150 ext. 5262  
Email: [NGhbn@brantford.ca](mailto:NGhbn@brantford.ca)

**Mary Kathryn Kelly, B.Sc.**  
Indigenous Relations and Partnerships Lead  
Wood Environment & Infrastructure Solutions  
Tel: (705) 493-9393  
Email: [mary.k.kelly@woodplc.com](mailto:mary.k.kelly@woodplc.com)



The City of Brantford is committed to ensuring adequate and appropriate engagement and consultation occurs where required and delegated to the City by the Crown. To that end, all inquiries and consultation with the Six Nations of the Grand River, and the various stakeholders who form part of the Six Nations community, concerning this project will be directed through the Consultation and Accommodation Process (CAP) Team established by the Six Nations Elected Council to carry out the process of consultation and accommodation in accordance with the Consultation & Accommodation Policy.

Yours truly,

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**Wendy Teufel**  
**Manager, Design and Construction**

cc:

Weylin Bomberry, Six Nations of the Grand River  
Russ Loukes, P. Eng., A/ General Manager, Public Works Commission  
Inderjit Hans, P. Eng., A/ Director, Engineering Services  
Nahed Ghbn, P. Eng., Senior Project Manager, Engineering Services  
Ron Scheckenberger P. Eng., Wood  
Bob Felker BES, MCIP, RPP, Wood  
Mary Kelly B.Sc., Wood

Encl: Project Update Information

wood.

CITY OF  
**BRANTFORD**

# Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project

**Project Update**  
**October 2019**



# Outline

---

1. Introduction
2. Background & Study Overview
3. Community Needs & Visioning
4. Alternative Remediation Alternatives / Evaluation Criteria
5. Discussion & Action Items



# Introduction



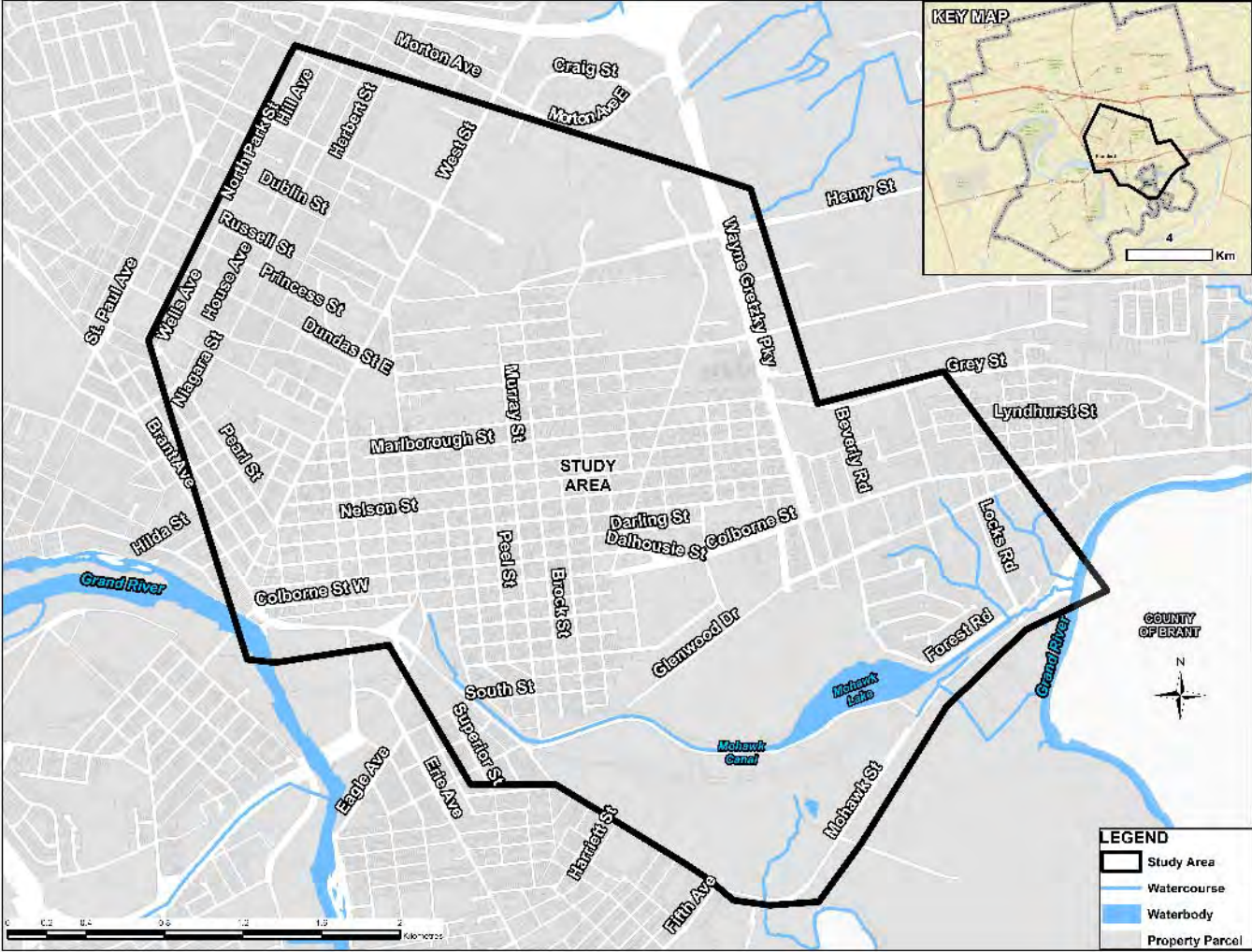
## Introduction: Study Purpose

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- **The purpose of the Study is to consider ways to improve the environmental quality of Mohawk Lake and Mohawk Canal by providing:**
  - Improved water quality conditions
  - Enhanced recreational opportunities
  - Enhanced fish & wildlife habitat
- **Potential benefits that remediation and restoration can provide to Mohawk Lake and Mohawk Canal may include:**
  - Improved aquatic & wildlife habitat
  - Protection & interpretation of cultural heritage resources
  - Opportunities for water recreation



# Introduction: Study Area





# Background & Study Overview



# Background & Study Overview:

## Historical Overview

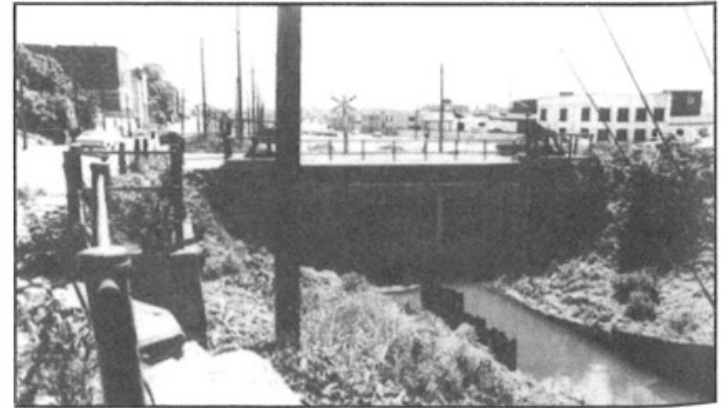
- Mohawk Lake was constructed in the 1800's as part of a canal system to provide access for barges traveling through Brantford and to enable the barges to turn around
- In the early 1900s, the lake and the surrounding parkland provided the community with recreational opportunities for residents and continues to offer valuable natural heritage for the City
- For decades, concern has been expressed about the deteriorating environmental conditions in the lake and canal
- As early as 1950, studies were conducted to improve the flow and to address siltation issues in the lake and canal
- The *Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project* was in part initiated in response to these concerns



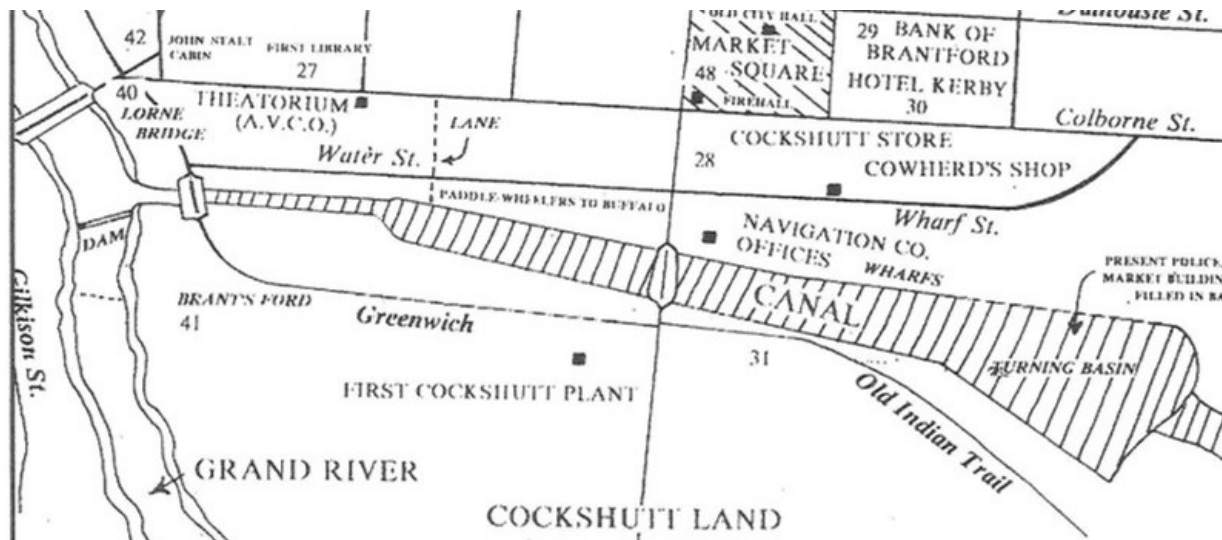
# Background & Study Overview:

## Historical Connection with the Grand River

- Grand River Navigation Canal
  - Previously connected Grand River at upstream limits to Mohawk Lake
  - Provided turning basin for boats
  - Eventually the canal was abandoned/filled but diversion sluice gate remained with buried pipeline?

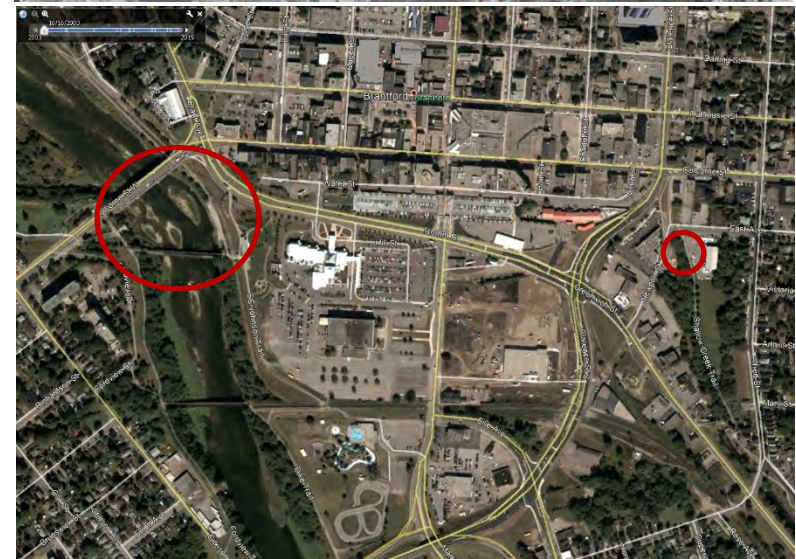


*Remnant Of The Past – This is all that remains of the Grand River Navigation Canal which once flowed from the river, north of Greenwich Street, to Mohawk Lake. The sluice gate allows water to run through a buried pipeline to Mohawk Lake, whenever the river rises.*



# Background & Study Overview: Historical Connection with the Grand River

- Historical Air Photos
  - Historical air photos show the upstream dam structure between Colborne Street and Dike Trail (1955, 1965, 1971, 1976, 1981, 1986)
  - No watercourse evident in any of the photos
  - Status of any pipeline unknown
- Dam is not evident in Google Earth 2003 images
  - Unclear as to exact date of removal or rationale
  - Status of pipeline unknown



# Background & Study Overview: Timeline

---

**1800s**

**Mohawk Lake and Mohawk Canal Constructed**

- Part of the canal system to provide access for barges traveling through Brantford and to enable the barges to turn around

**Early 1900s**

**Recreational Area**

- The lake and the surrounding parkland provided the community with recreational opportunities

**1950s**

**Early Cleanup Studies**

- Conducted to improve the flow and to combat the silting problems in the lake and canal

**1980s?**

**Mohawk Canal Disconnected from Grand River**

- Inflow from the Grand River diverting flow to the canal was disconnected with the removal of a dam

**2015**

**Visioning for Mohawk Lake**

- Visioning workshops provided the basis for a vision statement and work plans to address the clean-up

**2018 (in progress)**

**Characterization Study**

- Study to define the current (baseline) environmental conditions to support future rehabilitation measures

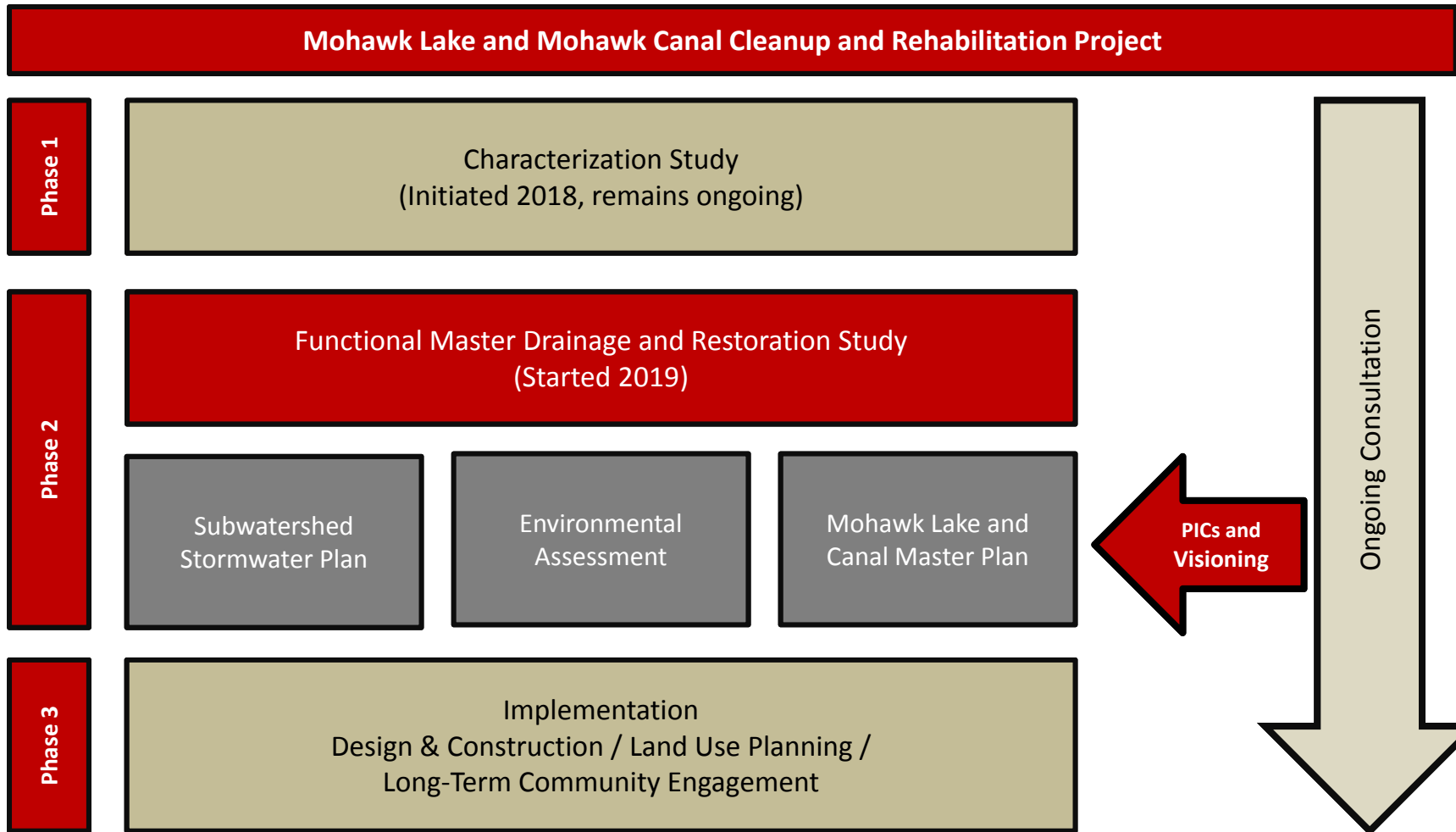
**2019 (in progress)**

**Functional Master Plan Drainage and Restoration Study**

- Study to define actions to enhance recreational opportunities, fish & wildlife habitat and improve water quality conditions



# Background & Study Overview: Process & Phases



# Background & Study Overview:

## Process & Phases

### Subwatershed Study

- Recommend actions to maintain, restore or enhance the health of the Mohawk Lake subwatershed
- Assess potential alternatives to identify a preferred subwatershed protection and restoration strategy
- Define environmental requirements such as design criteria and targets, priority phasing, mitigation measures, implementation and monitoring plans

### Environmental Assessment

- Consider all aspects of the environment: physical, natural, social, cultural and economic, including cost/benefit analyses
- Consult throughout the process
- Define the problem and opportunity  
Identify, develop and evaluate potential remediation options
- Identify, develop and evaluate potential remediation options
- Document the selection of the Preferred Remedial Option(s)

### Mohawk Lake Master Plan

- Develop a long range plan that integrate infrastructure requirements for existing and future land use with environmental assessment planning principles, and:
  - Looks beyond the infrastructure and remediation components
  - Considers land use and park use policy direction
  - Translates community vision into actions and commitments, including long-term engagement

### Community Engagement/ Project Management

- Communication and Engagement Plan

- PIC 1
- PIC 2

- Workshops
- Meetings



# Background & Study Overview: Process & Phases

## Municipal Class Environmental Assessment, Schedule B





# Community Needs & Visioning



# Community Needs & Visioning

---

## Community Engagement Findings

- Past Engagement:
  - Reviewed information from Mohawk Lake Working Group (2014 & 2015), Mohawk Lake District Plan (information available from 2018) and this project's PIC #1
- Future Engagement:
  - TM#5 will be updated based on the findings from PIC #2 and related engagement (i.e., Mississaugas of the Credit First Nation and Six Nations of the Grand River)
- Community Vision:
  - Vision statement from Mohawk Lake Working Group (2015) and Mohawk Lake District Plan (Ongoing) was reviewed.
  - A revised and updated vision statement will be determined for this project through engagement.
- Potential Recreational / Cultural Uses:
  - Boat; Fish; Canoe; Hike; Walk; Ice Skate; Bike; Picnic
  - Community / Charity events and festivals, such as Dragon Boat Races
  - Education and research opportunities for students, specifically based on the natural and cultural environment / history of Mohawk Canal, Six Nations of the Grand River, and Brantford's industrial heritage
  - Dances and concerts
- Summary of Identified Priorities:
  - Enhance the landscape for fish, wildlife, birds and vegetation
  - Preference not to significantly alter the landscape for human activities
  - Improve recreational opportunities, while maintaining the natural beauty of the area



# Community Needs & Visioning: Long-Term Engagement Plan

---

## Table of Contents (Draft)

- **Introduction**
- **Scope and Administration**
  - Roles and Responsibilities (i.e., City, Community Stakeholders / Indigenous Communities)
  - Communication and Engagement activities
  - Adaptive Management
- **Design Phase**
  - Inform (e.g., educate using interactive boards/ plaques throughout park, sculpture etc.)
  - Engage (e.g., advisory committee, workshops, community meetings, surveys, social media)
- **Construction Phase**
  - Pre-Construction (e.g., Notices for Groundbreaking Ceremony and potential Indigenous ceremonies such as Sunrise or Water)
  - During Construction (e.g., website / e-newsletter; community events (BBQ's, plantings etc.); notices; complaints procedure)
  - Construction Completion (e.g., communication, Notices for Ribbon cutting ceremony)
- **Post Construction Phase**
  - Five-Year Review (e.g., Community survey / Next steps)



# Remediation Alternatives / Evaluation Criteria



# Remediation Alternatives / Evaluation Criteria: Alternatives

---

Three main management approaches have been identified, and alternatives evaluated at a high level:

## 1. Mohawk Lake & Mohawk Canal Remediation

- *Sediment Removal from Lake*
- *Shoreline/Edge Treatment of lake perimeter*
- *Natural Channel Design of Canal*

## 2. Subwatershed Management

- *Source/Conveyance Control (Public/Private)*
- *End-of-pipe (Retrofits)*

## 3. Other

- *Street sweeping*
- *Public Education*
- *Recirculation/Re-connection with Grand River*



# Remediation Alternatives / Evaluation Criteria: Mohawk Lake and Canal Remediation

- In-Lake/In-Canal Restoration
  - Address issues of water and sediment quality within Mohawk Lake and Mohawk Canal
- Alternatives:
  1. Drawdown/Pumpdown and Mechanical Dredging
  2. Hydraulic Dredging
  3. Sediment Management – Physical Capping
  4. Sediment Management – Chemical Capping and Nutrient Inactivation
  5. Revegetation of Riparian Areas and Tributary Streams
  6. Watercourse Restoration (Mohawk Canal)
  7. Living Shorelines, Shoreline/Riparian Restoration, Shoreline Softening (Mohawk Lake)



Dredging Activities – From Land



Shoreline Restoration Activities



# Remediation Alternatives / Evaluation Criteria: Subwatershed Management

- Subwatershed Management Strategies
  - Address issues related to stormwater runoff quantity and quality that inflows to Mohawk Lake and Mohawk Canal
- Structural BMP Retrofits
  - Projects involving the installation of physical systems to provide mechanical, biological, or chemical control of the target water quality pollutant
- Long list of Alternatives:
  1. Upflow Media Filtration
  2. Baffle Boxes
  3. Eliminate Cross-Connections
  4. Wetland Treatment
  5. Infiltration/Exfiltration BMPs
  6. Modular Wetlands
  7. Offline Alum Polymer Treatment
  8. Bioreactor Walls and Beds
  9. Bioretention
  10. Permeable Concrete/Pavement
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**Stormwater  
Management**



# Remediation Alternatives / Evaluation Criteria: Subwatershed Management

---

- Source/Conveyance Controls

- |                                   |                                 |
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- |                                |                                   |
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# Remediation Alternatives / Evaluation Criteria: Other

---

- Subwatershed Management Strategies
  - Non-Structural BMPs
- Alternatives
  1. Public Education/Outreach
  2. Street Sweeping
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# Remediation Alternatives / Evaluation Criteria:

## Criteria



**Natural Environment**

- Water Quality (Chem. & Temp.)
- Water Quality
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- Capital Cost
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- Maintenance Cost
- Utilities Impacts
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**Social/Cultural Environment**

- Cultural Heritage and Archaeology
- Future Land Use and Growth Impacts
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**Technical Environment**

- Stormwater Management
- Hydrology
- Constructability
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# Remediation Alternatives / Evaluation Criteria

## Preliminary Preferred Alternatives

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### A. Mohawk Lake and Canal Remediation

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# Remediation Alternatives / Evaluation Criteria

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### **B. Subwatershed**

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### C. Other

1. Street Sweeping
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3. Reconnection with Grand River considered screened
  - Grades are not physically viable for a gravity pipe
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# Discussion & Action Items





October 18, 2019

Six Nations of the Grand River  
2498 Chiefswood Road, P.O. Box 5000  
Ohsweken, ON NOA 1MO

Attn: Ava Hill, Chief

**RE: Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project –  
Functional Master Drainage and Restoration Study  
Municipal Class Environmental Assessment Study**

---

Dear Chief Ava Hill,

In April 2019, the City shared that it had initiated a Municipal Class Environmental Assessment (Class EA) for the Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project - Functional Master Drainage and Restoration Study (the Study). The City has retained Wood Environment & Infrastructure Solutions (Wood) to undertake this Class EA Study.

We have spoken with Weylin Bomberry and he has advised that he would like to receive updates via email, and that if there are any questions or comments that he will advise. To provide an update of where the City is at in the Study, we have attached a Project Update information package. If there are comments or an interest in meeting, the City would welcome this.

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**Wendy Teufel**  
**Manager, Design and Construction**

cc:

Weylin Bomberry, Six Nations of the Grand River  
Russ Loukes, P. Eng., A/ General Manager, Public Works Commission  
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Ron Scheckenberger P. Eng., Wood  
Bob Felker BES, MCIP, RPP, Wood  
Mary Kelly B.Sc., Wood

Encl: Project Update Information



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CITY OF  
**BRANTFORD**

# Mohawk Lake and Mohawk Canal Cleanup and Rehabilitation Project

**Project Update**  
**October 2019**



# Outline

---

1. Introduction
2. Background & Study Overview
3. Community Needs & Visioning
4. Alternative Remediation Alternatives / Evaluation Criteria
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# Introduction



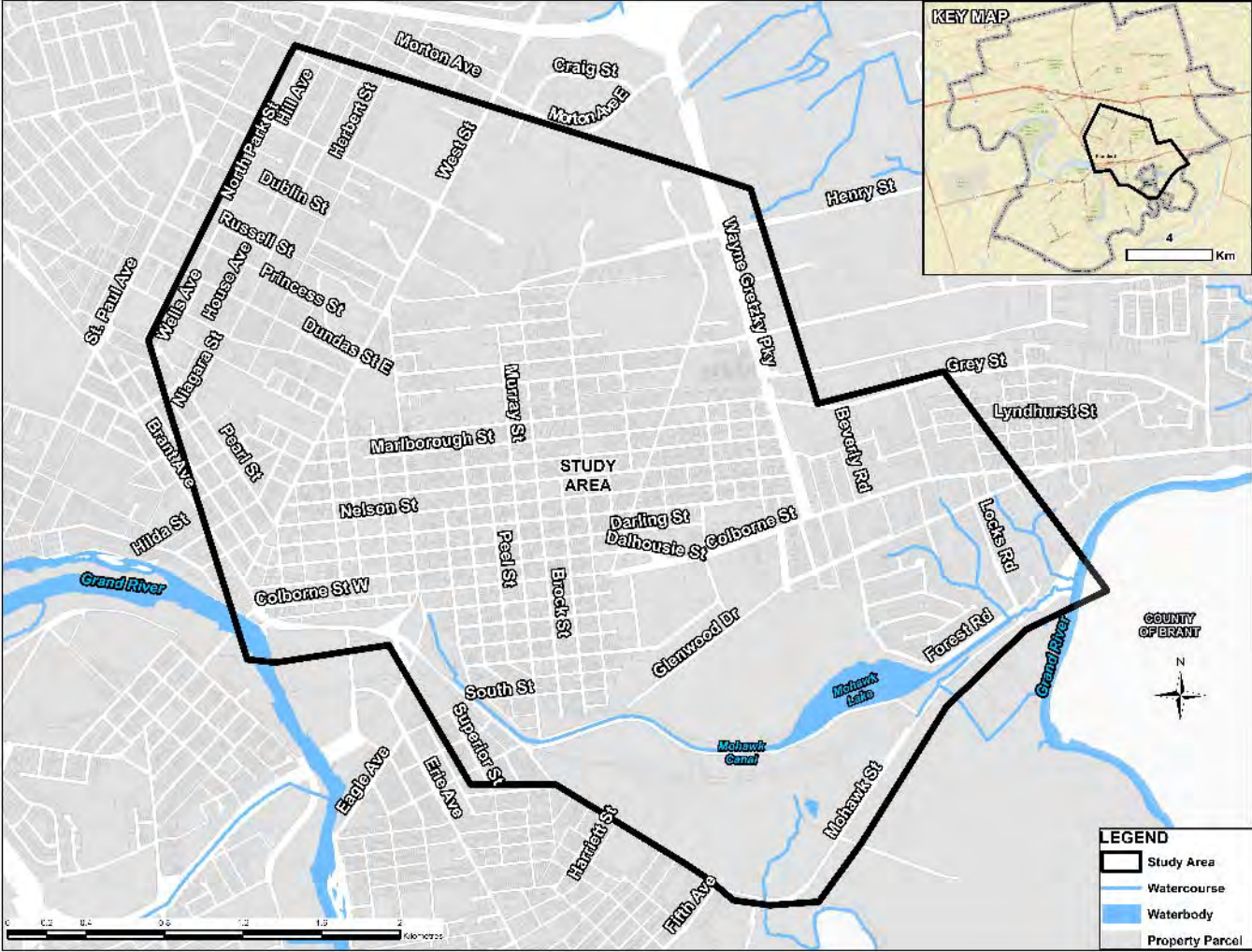
## Introduction: Study Purpose

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- **Potential benefits that remediation and restoration can provide to Mohawk Lake and Mohawk Canal may include:**
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# Introduction: Study Area



# Background & Study Overview



# Background & Study Overview:

## Historical Overview

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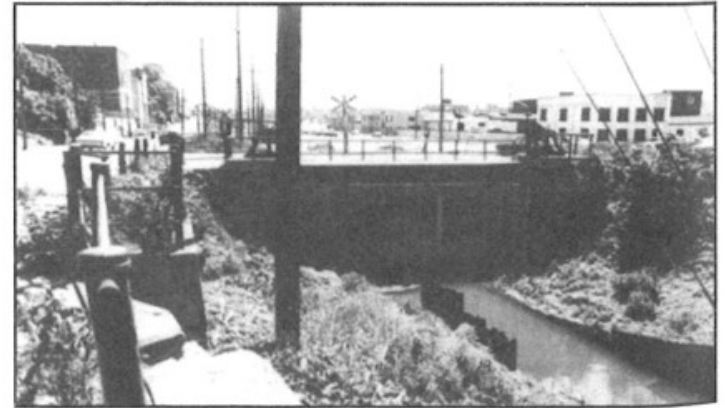
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- For decades, concern has been expressed about the deteriorating environmental conditions in the lake and canal
- As early as 1950, studies were conducted to improve the flow and to address siltation issues in the lake and canal
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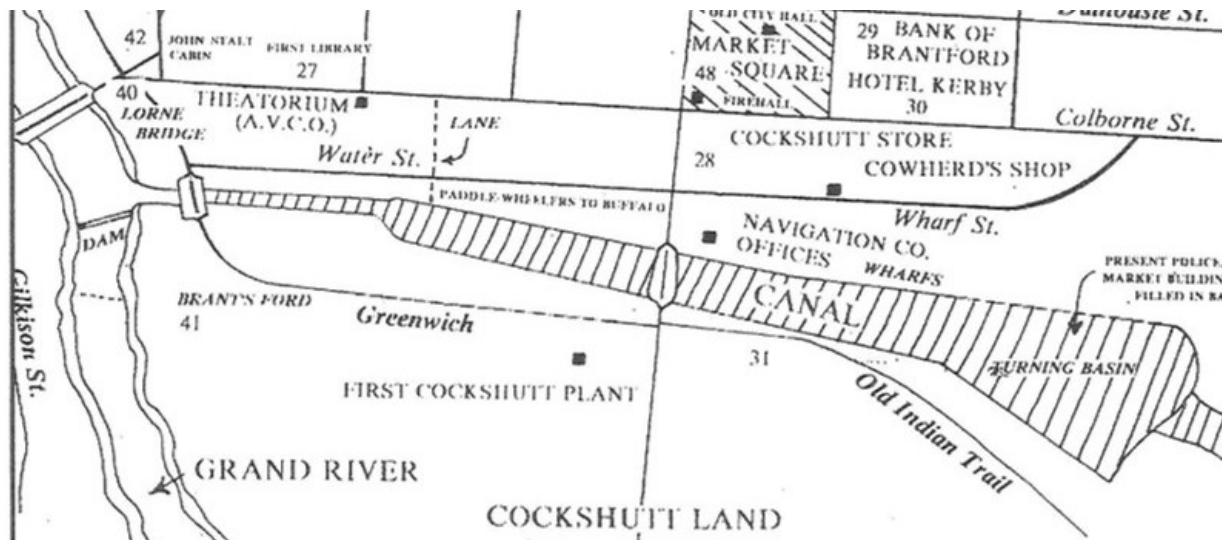
# Background & Study Overview:

## Historical Connection with the Grand River

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  - Previously connected Grand River at upstream limits to Mohawk Lake
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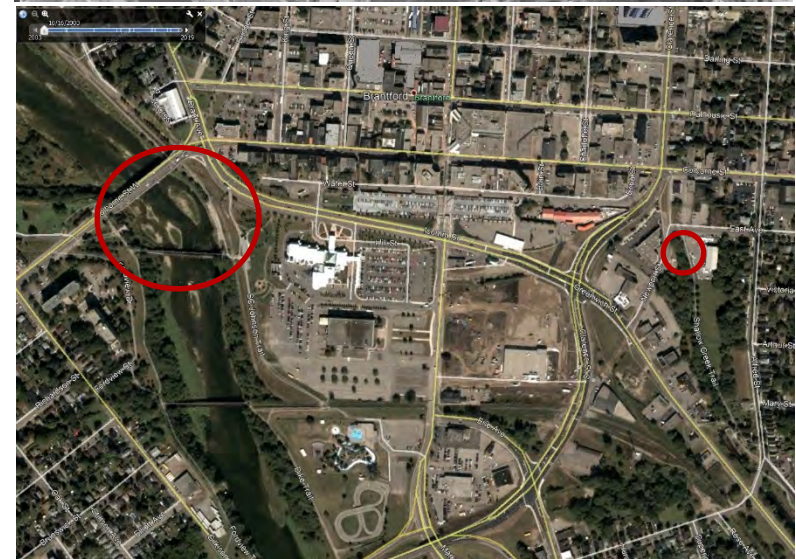
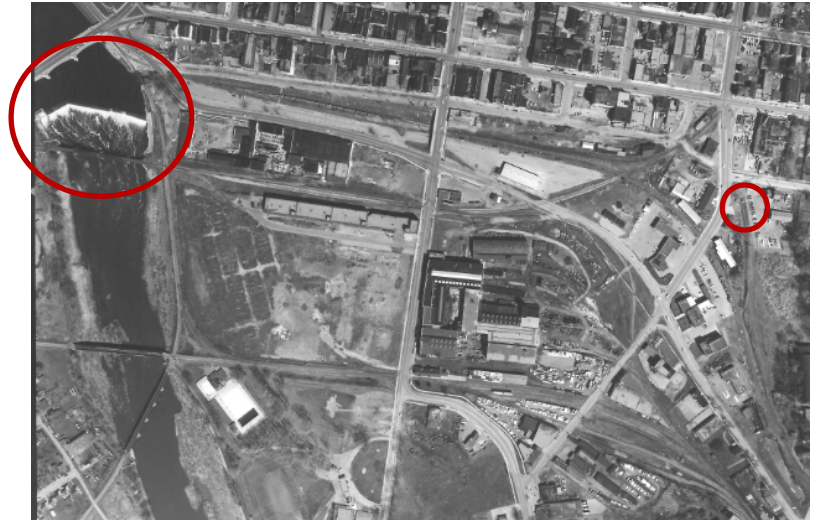
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# Background & Study Overview: Historical Connection with the Grand River

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  - No watercourse evident in any of the photos
  - Status of any pipeline unknown
- Dam is not evident in Google Earth 2003 images
  - Unclear as to exact date of removal or rationale
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# Background & Study Overview: Timeline

---

**1800s**

**Mohawk Lake and Mohawk Canal Constructed**

- Part of the canal system to provide access for barges traveling through Brantford and to enable the barges to turn around

**Early 1900s**

**Recreational Area**

- The lake and the surrounding parkland provided the community with recreational opportunities

**1950s**

**Early Cleanup Studies**

- Conducted to improve the flow and to combat the silting problems in the lake and canal

**1980s?**

**Mohawk Canal Disconnected from Grand River**

- Inflow from the Grand River diverting flow to the canal was disconnected with the removal of a dam

**2015**

**Visioning for Mohawk Lake**

- Visioning workshops provided the basis for a vision statement and work plans to address the clean-up

**2018 (in progress)**

**Characterization Study**

- Study to define the current (baseline) environmental conditions to support future rehabilitation measures

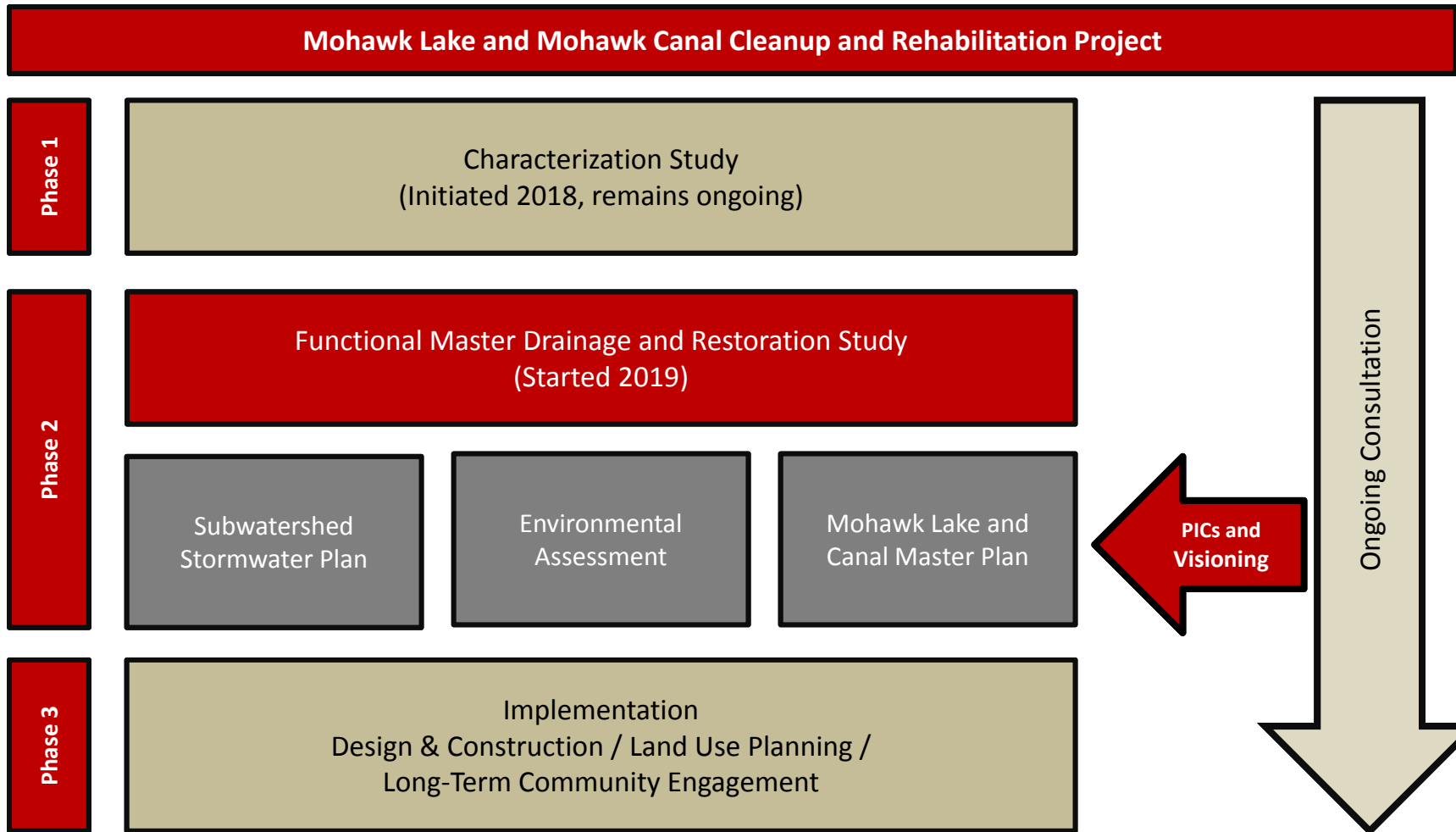
**2019 (in progress)**

**Functional Master Plan Drainage and Restoration Study**

- Study to define actions to enhance recreational opportunities, fish & wildlife habitat and improve water quality conditions



# Background & Study Overview: Process & Phases



# Background & Study Overview:

## Process & Phases

### Subwatershed Study

- Recommend actions to maintain, restore or enhance the health of the Mohawk Lake subwatershed
- Assess potential alternatives to identify a preferred subwatershed protection and restoration strategy
- Define environmental requirements such as design criteria and targets, priority phasing, mitigation measures, implementation and monitoring plans

### Environmental Assessment

- Consider all aspects of the environment: physical, natural, social, cultural and economic, including cost/benefit analyses
- Consult throughout the process
- Define the problem and opportunity  
Identify, develop and evaluate potential remediation options
- Identify, develop and evaluate potential remediation options
- Document the selection of the Preferred Remedial Option(s)

### Mohawk Lake Master Plan

- Develop a long range plan that integrate infrastructure requirements for existing and future land use with environmental assessment planning principles, and:
  - Looks beyond the infrastructure and remediation components
  - Considers land use and park use policy direction
  - Translates community vision into actions and commitments, including long-term engagement

### Community Engagement/ Project Management

- Communication and Engagement Plan

- PIC 1
- PIC 2

- Workshops
- Meetings



# Background & Study Overview: Process & Phases

## Municipal Class Environmental Assessment, Schedule B



# Community Needs & Visioning



# Community Needs & Visioning

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## Community Engagement Findings

- Past Engagement:
  - Reviewed information from Mohawk Lake Working Group (2014 & 2015), Mohawk Lake District Plan (information available from 2018) and this project's PIC #1
- Future Engagement:
  - TM#5 will be updated based on the findings from PIC #2 and related engagement (i.e., Mississaugas of the Credit First Nation and Six Nations of the Grand River)
- Community Vision:
  - Vision statement from Mohawk Lake Working Group (2015) and Mohawk Lake District Plan (Ongoing) was reviewed.
  - A revised and updated vision statement will be determined for this project through engagement.
- Potential Recreational / Cultural Uses:
  - Boat; Fish; Canoe; Hike; Walk; Ice Skate; Bike; Picnic
  - Community / Charity events and festivals, such as Dragon Boat Races
  - Education and research opportunities for students, specifically based on the natural and cultural environment / history of Mohawk Canal, Six Nations of the Grand River, and Brantford's industrial heritage
  - Dances and concerts
- Summary of Identified Priorities:
  - Enhance the landscape for fish, wildlife, birds and vegetation
  - Preference not to significantly alter the landscape for human activities
  - Improve recreational opportunities, while maintaining the natural beauty of the area



# Community Needs & Visioning: Long-Term Engagement Plan

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## Table of Contents (Draft)

- **Introduction**
- **Scope and Administration**
  - Roles and Responsibilities (i.e., City, Community Stakeholders / Indigenous Communities)
  - Communication and Engagement activities
  - Adaptive Management
- **Design Phase**
  - Inform (e.g., educate using interactive boards/ plaques throughout park, sculpture etc.)
  - Engage (e.g., advisory committee, workshops, community meetings, surveys, social media)
- **Construction Phase**
  - Pre-Construction (e.g., Notices for Groundbreaking Ceremony and potential Indigenous ceremonies such as Sunrise or Water)
  - During Construction (e.g., website / e-newsletter; community events (BBQ's, plantings etc.); notices; complaints procedure)
  - Construction Completion (e.g., communication, Notices for Ribbon cutting ceremony)
- **Post Construction Phase**
  - Five-Year Review (e.g., Community survey / Next steps)





# Remediation Alternatives / Evaluation Criteria



# Remediation Alternatives / Evaluation Criteria: Alternatives

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Three main management approaches have been identified, and alternatives evaluated at a high level:

## 1. Mohawk Lake & Mohawk Canal Remediation

- *Sediment Removal from Lake*
- *Shoreline/Edge Treatment of lake perimeter*
- *Natural Channel Design of Canal*

## 2. Subwatershed Management

- *Source/Conveyance Control (Public/Private)*
- *End-of-pipe (Retrofits)*

## 3. Other

- *Street sweeping*
- *Public Education*
- *Recirculation/Re-connection with Grand River*



# Remediation Alternatives / Evaluation Criteria: Mohawk Lake and Canal Remediation

- In-Lake/In-Canal Restoration
  - Address issues of water and sediment quality within Mohawk Lake and Mohawk Canal
- Alternatives:
  1. Drawdown/Pumpdown and Mechanical Dredging
  2. Hydraulic Dredging
  3. Sediment Management – Physical Capping
  4. Sediment Management – Chemical Capping and Nutrient Inactivation
  5. Revegetation of Riparian Areas and Tributary Streams
  6. Watercourse Restoration (Mohawk Canal)
  7. Living Shorelines, Shoreline/Riparian Restoration, Shoreline Softening (Mohawk Lake)



Dredging Activities – From Land



Shoreline Restoration Activities



# Remediation Alternatives / Evaluation Criteria: Subwatershed Management

- Subwatershed Management Strategies
  - Address issues related to stormwater runoff quantity and quality that inflows to Mohawk Lake and Mohawk Canal
- Structural BMP Retrofits
  - Projects involving the installation of physical systems to provide mechanical, biological, or chemical control of the target water quality pollutant
- Long list of Alternatives:
  1. Upflow Media Filtration
  2. Baffle Boxes
  3. Eliminate Cross-Connections
  4. Wetland Treatment
  5. Infiltration/Exfiltration BMPs
  6. Modular Wetlands
  7. Offline Alum Polymer Treatment
  8. Bioreactor Walls and Beds
  9. Bioretention
  10. Permeable Concrete/Pavement
  11. Stormwater Wet/Irrigation Ponds
  12. Energy Dissipaters
  13. Grassed swales, Bioswales
  14. Stormwater Inlet Treatment
  15. Oil/Grit and Hydrodynamic Separators



**Stormwater  
Management**



# Remediation Alternatives / Evaluation Criteria: Subwatershed Management

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- Source/Conveyance Controls

- |                                   |                                 |
|-----------------------------------|---------------------------------|
| 1. Upflow Media Filtration        | 10. Permeable Concrete/Pavement |
| 2. Baffle Boxes                   | 12. Energy Dissipaters          |
| 5. Infiltration/Exfiltration BMPs | 13. Grassed swales, Bioswales   |
| 8. Bioreactor Walls and Beds      | 14. Stormwater Inlet Treatment  |
| 9. Bioretention                   |                                 |

- End of Pipe Controls

- |                      |  |
|----------------------|--|
| 4. Wetland Treatment | 11. Stormwater Wet/Irrigation Ponds      |
| 6. Modular Wetlands  | 15. Oil/Grit and Hydrodynamic Separators |

- Other

- |                                |                                   |
|--------------------------------|-----------------------------------|
| 3. Eliminate Cross-Connections | 7. Offline Alum Polymer Treatment |
|--------------------------------|-----------------------------------|



# Remediation Alternatives / Evaluation Criteria: Other

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- Subwatershed Management Strategies
  - Non-Structural BMPs
- Alternatives
  1. Public Education/Outreach
  2. Street Sweeping
  3. Recirculation/Re-connection with Grand River



# Remediation Alternatives / Evaluation Criteria:

## Criteria



**Natural Environment**

- Water Quality (Chem. & Temp.)
- Water Quality
- Natural Heritage (Habitat, Wetlands and SAR)
- Fluvial
- Geomorphology
- Geology, Hydrogeology, and Groundwater



**Economic Environment**

- Capital Cost
- Contaminant Management Cost
- Maintenance Cost
- Utilities Impacts
- Property Acquisition



**Social/Cultural Environment**

- Cultural Heritage and Archaeology
- Future Land Use and Growth Impacts
- Hydraulics - Flooding



**Technical Environment**

- Stormwater Management
- Hydrology
- Constructability
- Community Resilience and Sustainability



# Remediation Alternatives / Evaluation Criteria

## Preliminary Preferred Alternatives

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- Preliminary Preferred Alternatives provided for discussion purposes – not yet formally analyzed or assessed

### A. Mohawk Lake and Canal Remediation

#### 1. Sediment Removal

- Hydraulic Dredging considered preferred approach (minimize disturbance)

#### 2. Shoreline Restoration

- Plantings and re-grading

#### 3. Natural Channel Design

- Fluvial enhancements





# Remediation Alternatives / Evaluation Criteria

## Preliminary Preferred Alternatives

---

- Preliminary Preferred Alternatives provided for discussion purposes – not yet formally analyzed or assessed

### **B. Subwatershed**

1. Source/Conveyance Controls
  - Roadway reconstructions (Public)
  - Redevelopment (Private)
2. End-of-Pipe (Retrofits)
  - Smaller more urban drainage systems
  - Public land availability
3. Other
  - Disconnection of Cross-Connections



# Remediation Alternatives / Evaluation Criteria

## Preliminary Preferred Alternatives

---

- Preliminary Preferred Alternatives provided for discussion purposes – not yet formally analyzed or assessed

### C. Other

#### 1. Street Sweeping

- Potential to enhance in subwatershed

#### 2. Public Education

- Avoid discharging pollutants to storm drainage system

#### 3. Reconnection with Grand River considered screened

- Grades are not physically viable for a gravity pipe
- Pumping not cost effective given magnitude of flow required
- Negative impacts associated with lowering Mohawk Lake (reduced footprint, additional sediment removal, etcetera)



# Discussion & Action Items



## Shams, Aniq

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**From:** Kelly, Mary K  
**Sent:** Monday, September 9, 2019 11:11 AM  
**To:** weylin.bomberry@sixnations.ca  
**Cc:** Nahed Ghbn (nghbn@brantford.ca); Scheckenberger, Ron; Senior, Matt; Felker, Bob; Shams, Aniq  
**Subject:** RE: City of Brantford - Mohawk Lake and Mohawk Canal Functional Master Drainage and Restoration Study

Good morning Weylin,

Thanks for the chat this morning. As discussed, we will share copies of the poster boards for the October public meeting once finalized with a brief summary of the status and next steps. If you have any questions or comments at that point we can discuss over the phone or set up a face-to-face meeting as necessary.

If you do have questions please do not hesitate to reach out at any time. Cheers, Mary

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**From:** Kelly, Mary K  
**Sent:** Wednesday, July 24, 2019 2:00 PM  
**To:** weylin.bomberry@sixnations.ca  
**Cc:** Nahed Ghbn (nghbn@brantford.ca) <nghbn@brantford.ca>; Scheckenberger, Ron <ron.scheckenberger@woodplc.com>; Senior, Matt <matt.senior@woodplc.com>; Felker, Bob <bob.felker@woodplc.com>; Shams, Aniq <aniqa.shams@woodplc.com>  
**Subject:** City of Brantford - Mohawk Lake and Mohawk Canal Functional Master Drainage and Restoration Study

Good afternoon Weylin,

Thanks so much for the chat today. As discussed, you are interested in being kept informed about the City of Brantford's Mohawk Lake and Mohawk Canal Functional Master Drainage and Restoration Study, and would like to receive copies of reports prepared. You will comment as needed on the shared information and may wish to have a face-to-face meeting about the details at a later date.

If you do have questions please do not hesitate to reach out at any time. Cheers, Mary

**Mary Kathryn Kelly, B.Sc.**

Indigenous Relations & Partnerships Lead / Senior Human

Environment Consultant

Direct/Mobile: 705-493-9393

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**wood.**



## **APPENDIX C:** Environmental Protection Plan Framework

## Environmental Protection Plan Framework

Category	Environmental Protection Measures
Cultural Heritage and Archaeology	<p>If artifacts are encountered during project related activities and are suspected to be of archaeological interest, all activity shall be immediately suspended and the area shall be fenced off. Discovery of previously undocumented archaeological resources may be a new archaeological site and therefore subject to Section 48(1) of the <i>Ontario Heritage Act</i>. A licensed archaeologist shall be consulted to determine if archaeological investigation is necessary. The licensed archaeologist, in consultation with the Indigenous communities, will determine an appropriate course of action before any resumption of construction activity in the immediate area of the find.</p> <p>If human remains are encountered, all activity shall be suspended. The <i>Cemeteries Act, R.S.O. 1990 c. C.4</i> and the <i>Funeral, Burial and Cremation Services Act, 2002, S.O. 2002, c.33</i> (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ontario Ministry of Consumer Services. The licensed archaeologist can assist with determining if suspicious remains are human as well as with the regulatory process that must be followed.</p>
Geology, Hydrogeology and Groundwater	<p>If project-related activities can impact groundwater, or if there is known groundwater contamination or if an activity is in the vicinity of a sensitive watercourse or wildlife habitat, monitoring wells are to be installed on-site and on adjacent properties to monitor migration of contaminants in groundwater. The groundwater professional shall be consulted to evaluate the need for construction monitoring wells and will include requirements for these in the project specifications. Where monitoring wells are installed, regular monitoring of groundwater quality and elevation is to be conducted by the groundwater professional or as directed by them, before, during, and after the activity.</p>
Hydrology and Stormwater Management	<p>A thorough check of the measures to manage stormwater and surface water must be conducted by the construction contractor on a daily basis, especially before and after a forecast storm/rain event. Construction contractors are to be aware of upcoming weather conditions and modify/implement appropriate measures in order to prevent off-site migration of sediment or contaminated water.</p>
Erosion and Sediment Control and Water Quality	<p>Erosion and sediment controls for construction activities shall be implemented in areas where there is erosion and sedimentation potential near a wetland, waterbody and natural areas. All Erosion and sediment control measures shall be installed at the initial stage of construction and shall be inspected on a regular basis, particularly following heavy weather events, to ensure integrity and function of the system.</p>
Wildlife	<p>Wildlife shall not be threatened, harassed or injured. Harassment of wildlife is prohibited by provincial regulations. Construction personnel</p>

## Environmental Protection Plan Framework

Category	Environmental Protection Measures
	shall yield to wildlife and move a safe distance away from any wildlife encounters, preferably in a vehicle, and wait for the animal to leave before resuming construction.