

Appendix A  
Public/Agency Consultation

To be the most livable town in Canada.

## Notice of Open House

Lower Morrison and Wedgewood Creeks Flood Mitigation and Opportunities Study

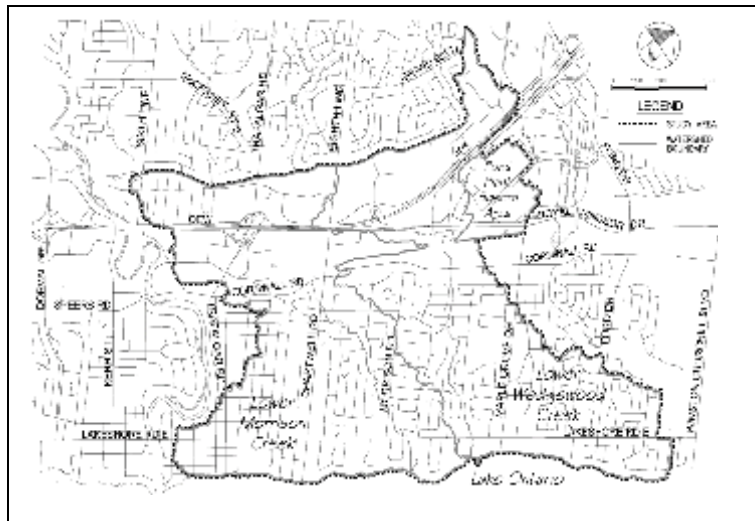
**Tuesday June 18<sup>th</sup>, 2019 – 6:00 pm to 8:00 pm**  
**Town Hall (1225 Trafalgar Road), South Atrium**

### Your input is important!

The Town of Oakville is hosting an open house to present information on the following flood mitigation study:

#### **Lower Morrison and Wedgewood Creeks Flood Mitigation and Opportunities Study**

*To assess flood risks, establish alternatives to mitigate them and determine preferred solutions.*



This will be the first Open House for the Flood Mitigation and Opportunities Study. The Town will be presenting background information on flood-prone sites, updates from investigations and preliminary ideas and alternatives for flood mitigation.

This open house will take place on **Tuesday June 18<sup>th</sup> from 6:00 to 8:00 p.m.** at Town Hall – South Atrium (1225 Trafalgar Road).

The Open House is a drop-in format where staff and the town's consulting team will be present to discuss these studies and answer any questions. Members of the community are invited to share their own ideas on these studies during the Open House.\*

If you are attending the Open House and have any accessibility needs, please let us know as soon as possible by contacting one of the project representatives or by filling out the accessible online feedback form on oakville.ca.

**Kristina Parker, P. Eng.**  
Town of Oakville  
(905) 845-6601 Ext. 3889  
[kristina.parker@oakville.ca](mailto:kristina.parker@oakville.ca)

**Steve Chipps, P.Eng.**  
Project Manager, Wood  
(905) 335-2353 Ext. 3114  
[Steve.chipps@woodplc.com](mailto:Steve.chipps@woodplc.com)

Information related to the study and consultation process will be posted on the Town of Oakville's website at <https://www.oakville.ca/environment/flooding.html>

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



**wood.**

# Public Information Centre No. 1

## Flood Mitigation Opportunities Study

### Lower Morrison and Lower Wedgewood Creeks

Town of Oakville

June 18, 2019



Welcome! Please sign in and fill out a comment form.



# 1. Study Overview, Purpose and Challenges

- The Town of Oakville has initiated a Municipal Class Environmental Assessment (Class EA) for the Flood Mitigation Opportunities Study for Lower Morrison and Lower Wedgewood Creeks.
- The Study will allow town staff to gain an understanding of the existing flood risks within both creek systems, and assess flood mitigation alternatives leading to recommended capital projects for flood mitigation.
- Some of the challenges and needs facing the Town of Oakville include:
  - Drainage infrastructure at, or over, capacity;
  - Intensifying land uses with respect to lot coverage;
  - Lack of historical stormwater management in Study Area;
  - Creek systems in private ownership; and
  - Safe access for emergency routes.



## 2. Study Goals

- The goals of the Flood Mitigation Opportunities Study are to:
  - Improve understanding of flood risks within both creek systems
  - Reduce flood risks to the public, property, buildings and infrastructure
  - Seek opportunities to improve stormwater management planning practices
  - Build climate change resiliency



# 3. Study Approach and Methodology

## Approach

- Assess the hydraulic performance of the existing creek systems
- Develop a long-term plan for reducing flood risk
- Establish a set of priority-based actions
- Recommend municipally-led capital works to address flood risks within Lower Morrison and Lower Wedgewood Creeks



## Methodology

- Data collection / reconnaissance
- Field survey of creek crossings
- Numerical modelling to determine flows in creeks
- Numerical modelling to determine flood elevations and velocities in creeks
- Performance evaluation of flood plains and crossings for:
  - Lower Morrison Creek
  - Lower Wedgewood Creek
- Systematic alternative assessment, considering:
  - Natural environment
  - Social environment
  - Economic environment



## 4. Municipal Class EA Process

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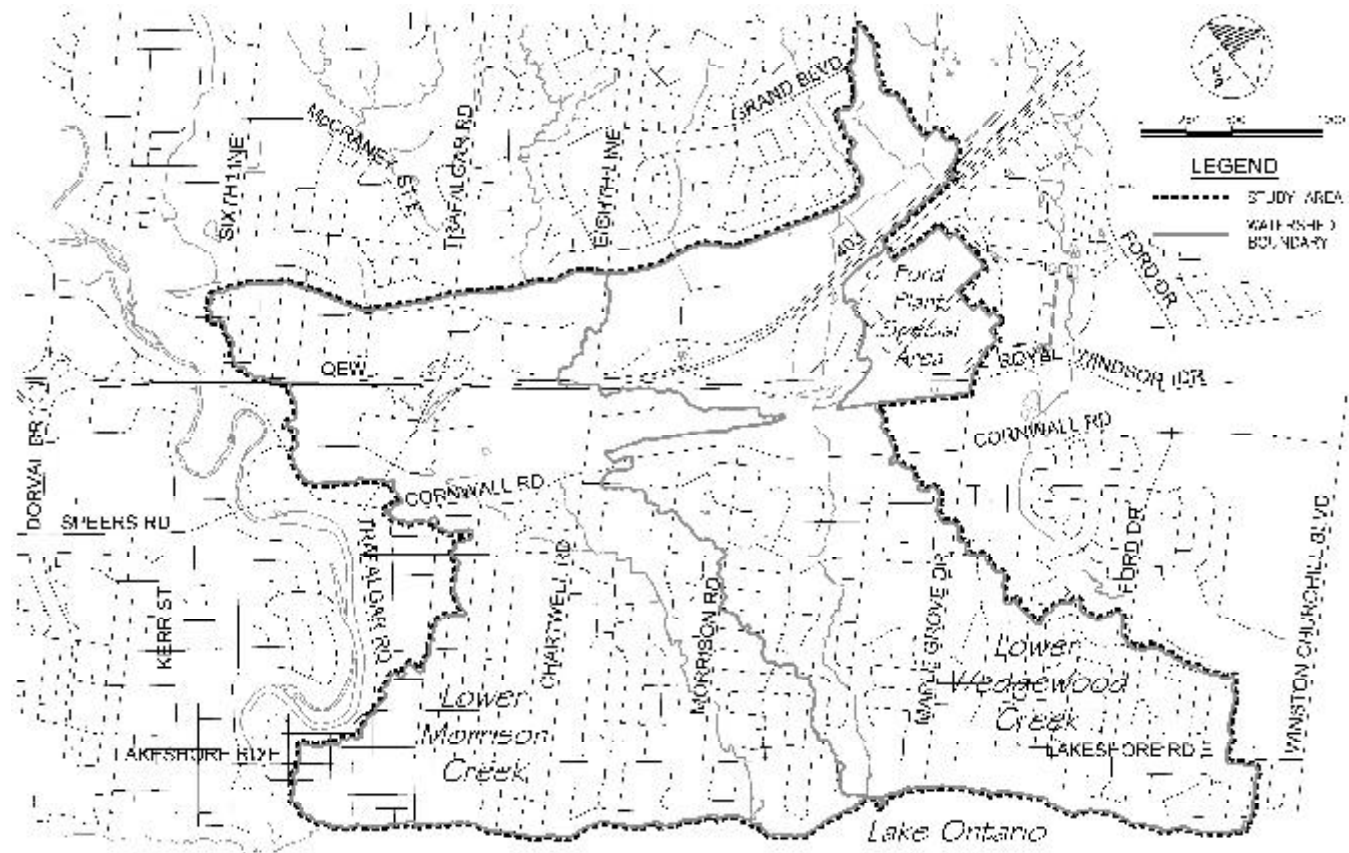
- The Flood Mitigation Opportunities Study is following the Class EA process (Phases 1-4) which is outlined in the Municipal Engineers Association document titled "Municipal Class Environmental Assessment," (Oct 2000, as amended in 2007, 2011 & 2015) to satisfy Phases 1 and 2 of the Class EA Process.
- The Class EA will establish a comprehensive set of priority based recommendations for flood risk management for both the Lower Morrison and Lower Wedgewood Creeks.
- Project is split into two (2) phases:
- **Phase 1: Problem Definition:**
  - Focused on data collection, data gap filling, and establishing an understanding of the existing flood risks for both Lower Morrison and Lower Wedgewood Creeks.
- **Phase 2: Development and Review of Options**
  - Building on the data collected in Phase 1 and the understanding of existing flood risk, this phase will focus on preparing prioritized options to mitigate flood risks.





# 6. Study Area Map

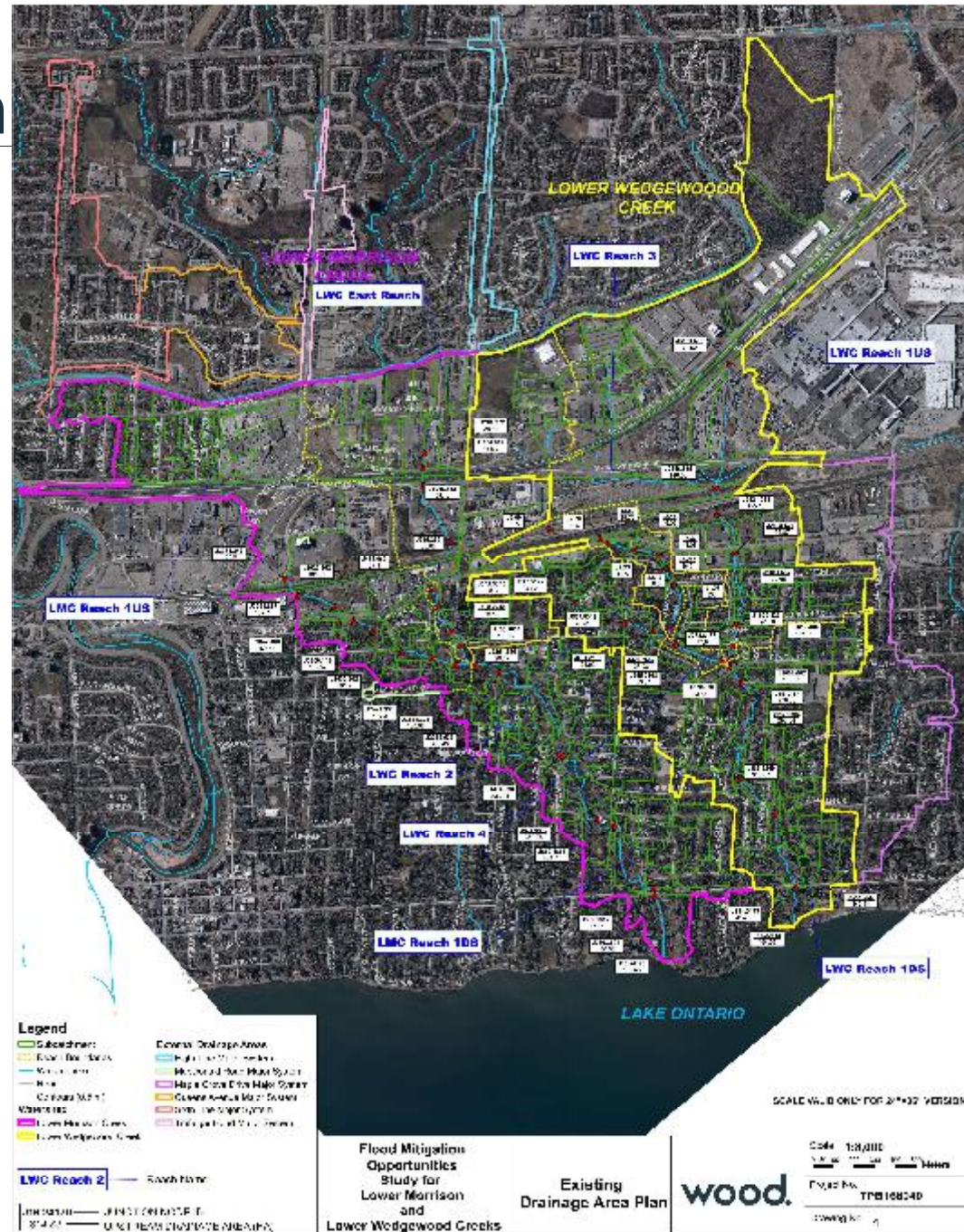
The Study Area is defined based on the drainage boundaries for the Lower Morrison and Lower Wedgewood Creeks. Based on the age of development, most of the creek systems are located within private property.





# 7. Study Area Plan

The detailed Drainage Area Plan for the Study Area includes the overland drainage systems and the local storm sewer system.

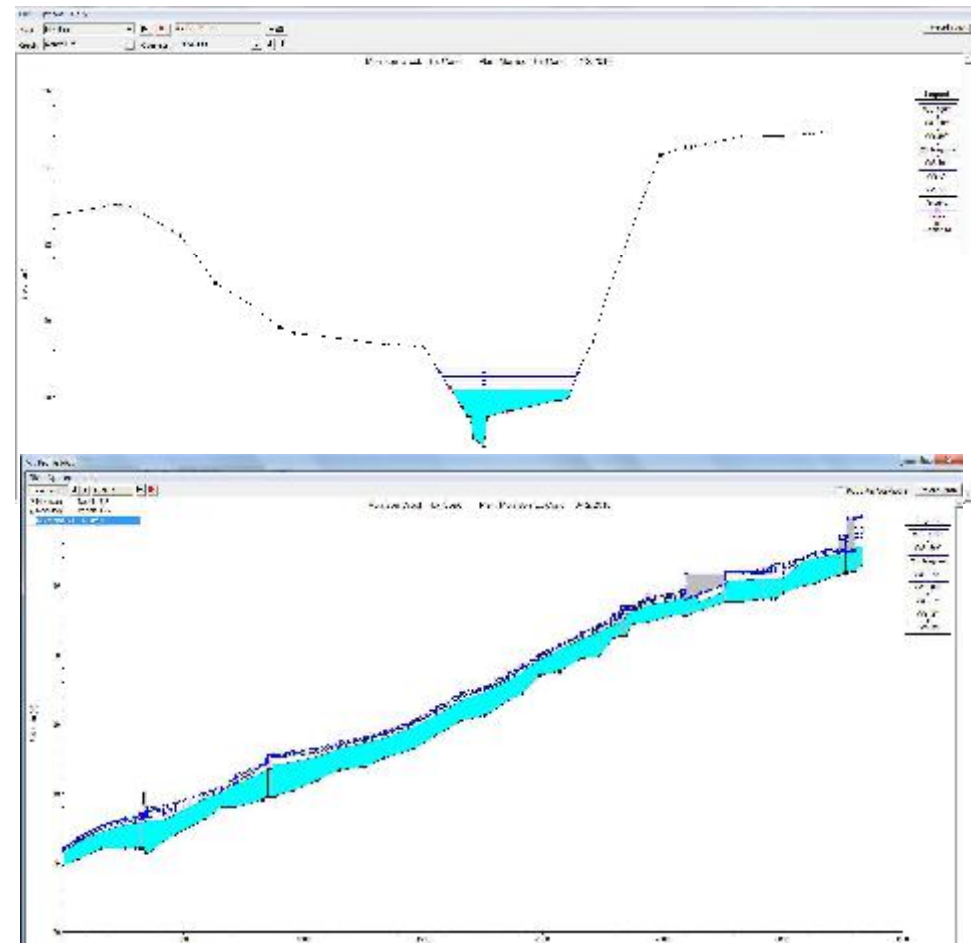




# 8. Modelling and Assessment Process

- Computer models developed to represent the urban system to establish peak flows to each of the creek systems.

- Computer models developed to represent the hydraulics (flood levels) for each creek system.





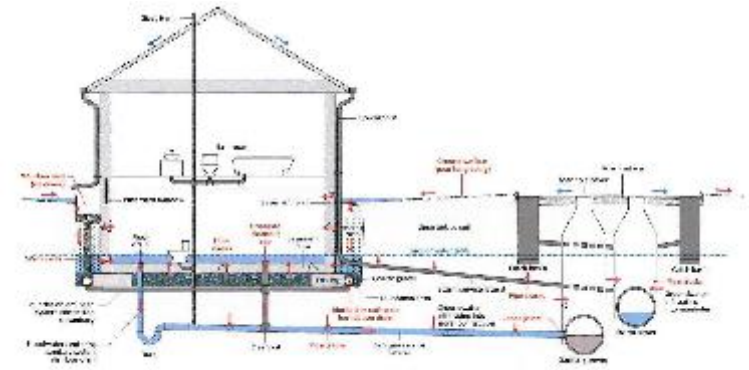
# 9. Flooding Mechanisms

The Flood Mitigation Opportunities Study focuses on flood risks associated with fluvial/riverine flooding resulting from the hydraulic performance of the creek systems.

Fluvial/Riverine Flooding ✓



Foundation Drain Flooding ✗



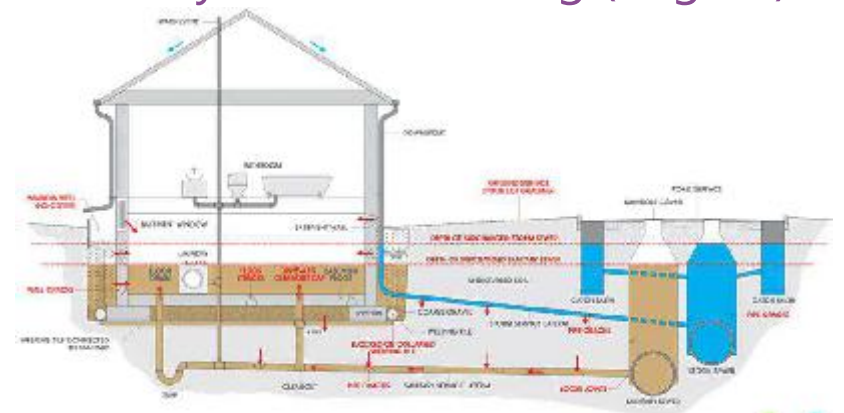
Source: ICR Handbook for Reducing Basement Flooding

Urban Flooding ✗



Source: CTV News

Sanitary Sewer Flooding (Region) ✗



# 10. Flooding Mechanisms

Fluvial/riverine flooding can result from:

- Limited culvert/bridge capacity
- Inadequate floodplain and channel (conveyance system) capacity
- Spill-prone areas where flows exceed the watercourse and discharge away from the creek
- Lack of stormwater control (*Flooding cause, not mechanism*)
- Blockages due to debris and/or ice

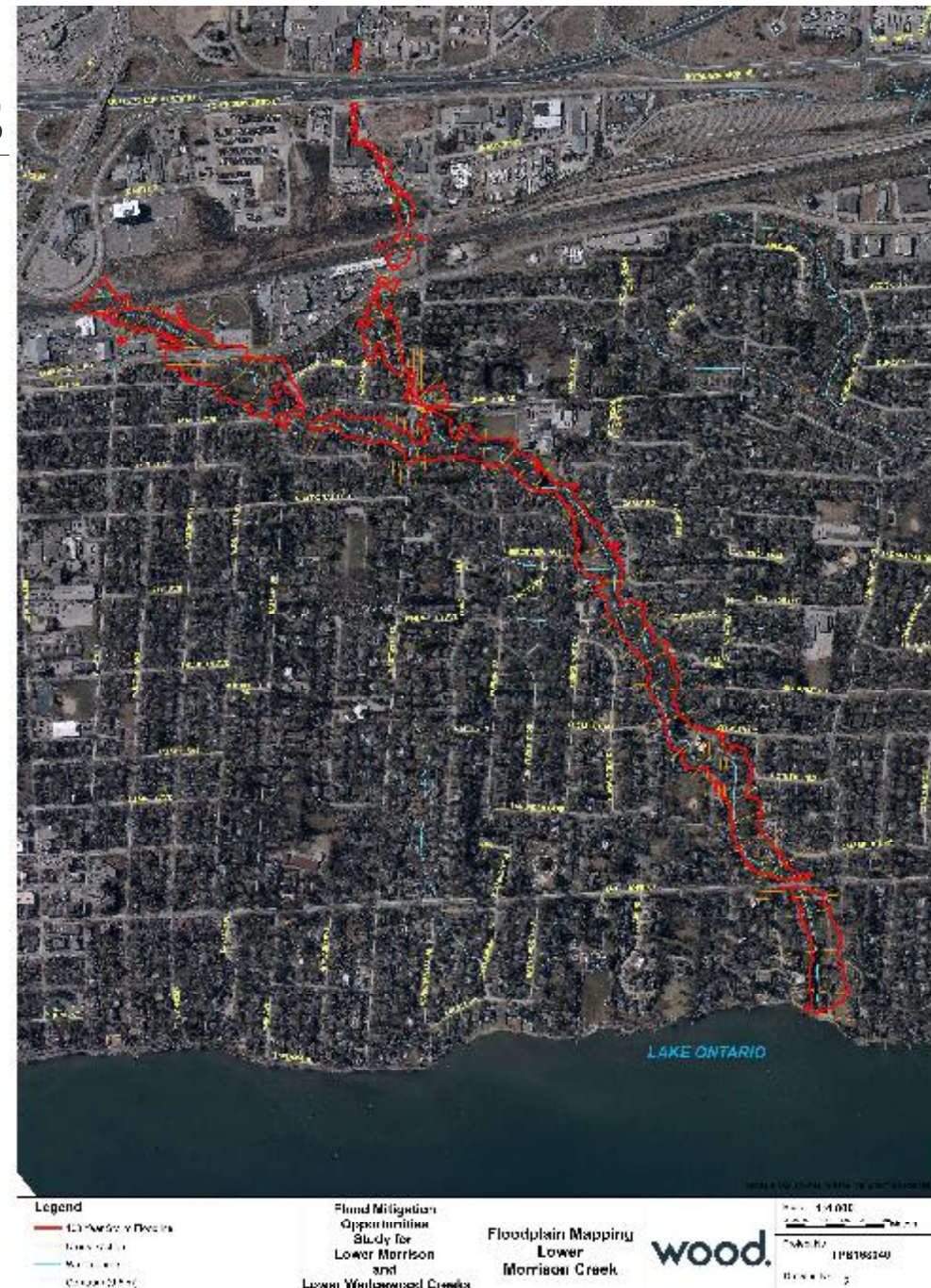




# 11. Phase 1 Study Outcomes

## Lower Morrison Creek

- Flood risks determined for the:
  - 10 year storm (10% chance occurring in a given year)
  - 100 year storm (1% chance occurring in a given year)
  - Regional Storm (Hurricane Hazel)
- For 100 year storm (produces highest flows) the following are at risk:
  - 6 commercial properties
  - 89 residential properties
  - 3 public space properties
  - 41 residential buildings
  - 2 commercial buildings

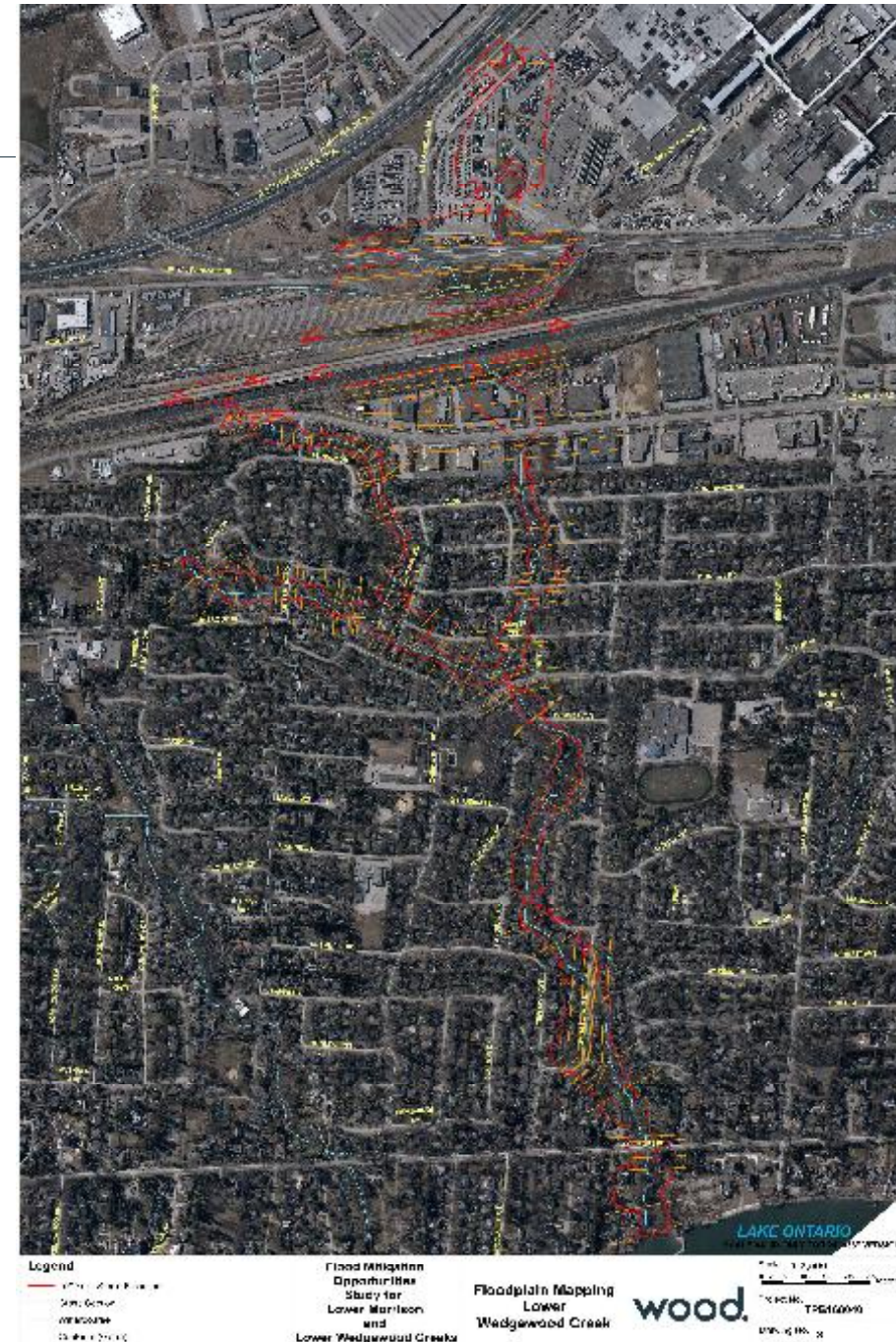




# 12. Phase 1 Study Outcomes

## Lower Wedgewood Creek

- Flood risk determined for the:
  - 10 year storm (10% chance occurring in a given year)
  - 100 year storm (1% chance occurring in a given year)
  - Regional Storm (Hurricane Hazel)
- For a 100 year storm (produces highest flows) the following are at risk:
  - 1 industrial property
  - 164 residential properties
  - 3 public space properties
  - 74 residential buildings
  - 2 commercial buildings





# 13. Phase 1 Study Outcomes

## Bridges/ Culverts

- Crossings of the creeks consist of roads, pedestrian bridges and rail lines
- Crossings are either bridges or culverts of various sizes and forms
- The following road crossings are considered deficient based on current town and Provincial standards

Morrison Creek	Wedgewood Creek
Maple Avenue	Duncan Road
Chartwell Road	Amber Crescent
Morrison Road	Morrison Road
	Cumnock Crescent
	Drummond Road
	Wedgewood Drive
	Warren Drive Park
	Lakeshore Road



Wedgewood Drive Crossing

# 14. Preliminary Flood Management Alternatives



## Increase Conveyance Capacity

### Crossing Upgrades

- Replace and/or supplement creek crossings to convey design flows. Amber Crescent crossing is planned to be upgraded in 2019.



## Floodplain/ Channel Improvements

- Improve conveyance by widening the channel and other grading improvements





# 15. Preliminary Flood Management Alternatives



## Increase Conveyance Capacity

### Roadway Profile Modifications

- Optimize road profile to reduce upstream flooding, maintain road design within standards, and to allow vehicle passage and emergency access during flood conditions





# 16. Preliminary Flood Management Alternatives



## Protect at-risk Structures

### Flood Proofing Buildings (Localized Protection)

- Buildings can be flood proofed by sealing low openings and/or local berming and flood walls





# 17. Preliminary Flood Management Alternatives



## Reduce Risk of Culvert Blockages

- Debris can accumulate upstream of culverts and restrict flow conveyance and result in flooding conditions.
- Debris management and strategic grate systems can achieve this objective.

## Flow Diversions

Drainage can be diverted away from high flood risk areas to locations further downstream within the same creek or to another creek system which have residual and safe capacity. Flow diversions can be channels and/ or piped systems.



Note: Requires consideration of the hydraulic capacity of location which is being diverted towards.

# 18. Preliminary Flood Management Alternatives



## Flood Control via Stormwater Management Quantity Controls

### Flood Storage (Ponds and Tanks)

- Peak flows can be reduced by temporarily storing runoff and releasing it when flow capacity is available.



## Low Impact Development (LID) Best Management Practices (BMPs)

- LID BMPs can temporarily store or infiltrate local drainage for the more frequent storm events (i.e. 2 to 5 year), therefore reducing flows in creeks.



Bioretention System (Infiltrates drainage from roadways)





# 19. Preliminary Flood Management Alternatives



## Flood Control via Stormwater Management Quantity Controls in Planned Development Areas

### Midtown Area Stormwater Management Criteria

- The Midtown Area is currently being assessed to determine required stormwater management (SWM) controls for future development.
- The SWM controls will prevent creek erosion and reduce flood risks within Lower Morrison Creek and Lower Wedgewood Creek.
- The type of SWM controls will depend upon the form of development, but is expected to include low impact development best management practices and more traditional forms of SWM (i.e. above and below ground storage).



# 20. Preliminary Flood Management Alternatives



## Non-structural Solutions

### Public Education

- Maintenance of storm drainage systems, including creeks on, or near, private property requires cooperation from the public to ensure they function properly.
- Education programs to inform the public of the need for storm drainage systems, and the importance of ensuring their continued operation.

### Emergency Preparedness

- Focus on areas identified through the Study that are at-risk of flooding.
- Knowledge of these locations, coupled with advanced warning of severe storms, allows the town to pro-actively address potential flood issues or notify the public of flood potential.

### Policy Amendments

- Various emerging directions exist in the stormwater management field:
  - Provincial requirements for source control and “treatment train” approach for stormwater management
- The Town’s current Policies, By-Laws, and Guidelines related to stormwater and environmental protection/management may need to be amended to address emerging matters.





## 21. Next Steps

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- Receive public comments by July 3, 2019
- Incorporate public input into the Study
- Further develop long-list of alternatives and conduct screening of alternatives to a short-list of alternatives. Alternatives to be considered within both public and private ownership, with private land owners to be advised of alternatives that could be undertaken collectively.
- Short-Listed Alternatives to undergo detailed assessment and input from agencies and stakeholders
- Develop details of Preferred Alternatives
- Assess mitigation requirements of potential negative effects;
- Consultation with agencies and stakeholders;
- PIC No. 2 – Fall 2019
- Prepare and File Environmental Study Report.

# How to Provide Comments

## Please Complete a Comment Sheet:



▪ By Mail:

**Kristina Parker, P.Eng**

Water Resources Engineer

Town of Oakville

1225 Trafalgar Road, P.O. Box 310

Oakville, ON L6J 5A6

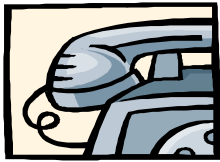
**Steve Chipps, P.Eng.**

Consultant Project Manager

Wood

3450 Harvester Road

Burlington ON L7N 3W5



▪ By Phone:

Tel.: 905-845-6601 ext. 3889

Tel.: 905-335-2353

Toll Free: 1-866-751-2353



▪ By Email:

E-mail: [kristina.parker@oakville.ca](mailto:kristina.parker@oakville.ca)

E-mail: [steve.chipps@woodplc.com](mailto:steve.chipps@woodplc.com)

Please submit comments no later than  
July 3, 2019

Thank you for your participation!

Chipps, Steven

---

From: Kristina Parker <kristina.parker@oakville.ca>  
Sent: Tuesday, June 11, 2019 4:19 PM  
To: 'Natywary, Laurielle'  
Cc: Clark, Richard; Chipps, Steve  
Subject: RE: Lower Morrison and Wedgewood Creeks Flood Mitigation Opportunities Study Environmental Class EA - Notice of PIC - Town of Oakville

Laurielle,

Thanks for your email. Steve, can you please add to your files.

There will be a second PIC either later this year or early next year. we will have a better idea of any potential impacts as we work through the evaluation of alternatives.

Many thanks,

---

From: Natywary, Laurielle [mailto:Laurielle.Natywary@halton.ca]  
Sent: Tuesday, June 11, 2019 2:05 PM  
To: Kristina Parker <kristina.parker@oakville.ca>  
Cc: Clark, Richard <Richard.Clark@halton.ca>  
Subject: FW: Lower Morrison and Wedgewood Creeks Flood Mitigation Opportunities Study Environmental Class EA - Notice of PIC - Town of Oakville

Hi Kristina,

Would you please keep me included and up to date on what's happening with this. Regional policy 118(2)b) would apply if any alteration is proposed in the NHS—even if it's being proposed through an EA.

Flood mitigation work can sometimes lead to changes in valley areas that are part of the NHS. The Region will want to make sure there is a complete evaluation of all alternatives before resorting to undertaking engineering works in the NHS (i.e. to ensure they meet the defn of "essential"). If there is the need to encroach/construct in the NHS, following consideration of all other alternatives, the EA should examine potential negative impacts on Key Features of the NHS and their ecological functions and should demonstrate that these will be avoided and/or mitigated. Any residual negative impacts should also be identified and commitments to appropriately offset these should be included.

The Region will be deferring to the Conservation Authority but want to keep in the loop with the project.

Thanks,  
Laurielle

**Laurielle Natywary**

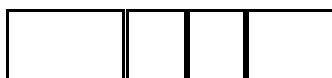
**Senior Planner**

Planning Services

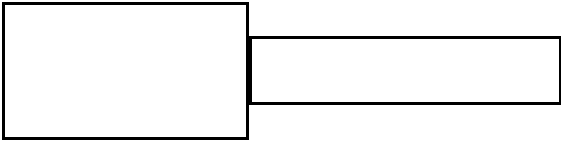
Legislative & Planning Services

**Halton Region**

905-825-6000, ext. 7182 | 1-866-442-5866







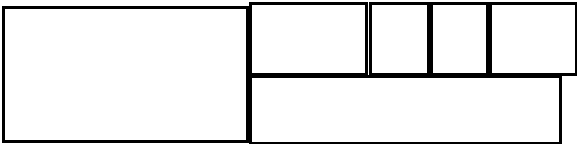
This message, including any attachments, is intended only for the person(s) named above and may contain confidential and/or privileged information. Any use, distribution, copying or disclosure by anyone other than the intended recipient is strictly prohibited. If you are not the intended recipient, please notify us immediately by telephone or e-mail and permanently delete the original transmission from us, including any attachments, without making a copy.

---

From: Clark, Richard <Richard.Clark@halton.ca>  
Sent: Tuesday, June 11, 2019 9:28 AM  
To: Natywary, Laurielle <Laurielle.Natywary@halton.ca>  
Subject: FW: Lower Morrison and Wedgewood Creeks Flood Mitigation Opportunities Study Environmental Class EA - Notice of PIC - Town of Oakville

FYI – not sure if you received this too. Keeping you in the loop.

**Richard Clark**  
Senior Planner  
Planning Services  
Legislative & Planning Services  
Halton Region  
905-825-6000, ext. 7214 | 1-866-442-5866



---

From: Kristina Parker <[kristina.parker@oakville.ca](mailto:kristina.parker@oakville.ca)>  
Sent: Monday, June 10, 2019 5:00 PM  
Subject: Lower Morrison and Wedgewood Creeks Flood Mitigation Opportunities Study Environmental Class EA - Notice of PIC - Town of Oakville

FYI

The Lower Morrison and Lower Wedgewood Creeks Flood Mitigation Opportunities Study is an on-going Municipal Class Environmental Assessment (Class EA) being managed by the Development Engineering Department. This study is a follow-up study to the 2008 Town-wide Flood Study. Please find attached a copy of the 'Notice of Public Meeting #1' that has been printed in the Oakville Beaver this week and posted on the Town's [website](#). This notice has also been sent out to stakeholder agencies and interested residents associations.

This will be the first Open House for the flood mitigation opportunities study. Town staff will be presenting background information on flood-prone sites, updates from investigations and preliminary ideas and alternatives for flood mitigation.

This open house will take place on **Tuesday June 18th from 6:00 to 8:00** p.m. at Town Hall – South Atrium (1225 Trafalgar Road).

Best Regards,

**Kristina Parker, M.A.Sc., P.Eng.**  
**Water Resources Engineer**  
**Development Engineering**

Town of Oakville | 905-845-6601, ext.3889 | f: 905-338-4414 | [www.oakville.ca](http://www.oakville.ca)

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[Canada's Best Place to Live \(MoneySense 2018\)](#)

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<http://www.oakville.ca/privacy.html>





OAKVILLE

PUBLIC INFORMATION CENTRE No. 1

JUNE 18, 2019

COMMENT SHEET

**PROJECT:** Flood Mitigation Opportunities Study  
Lower Morrison and Lower Wedgewood Creeks

PLEASE PRINT

NAME:

E-mail:

(Number & Street)

(Municipality)

(Postal Code)



Comments:

My property is right at the top end of Wedgewood Creek Drainage watershed.

I am concerned that increased in-flows into the watershed will flood my property. There is considerable blockage in road-side ditches along Chamberlain/Melvin areas.

There is an underground elliptical concrete drain or an easement at my property.



Please send your comments by July 3, 2019 to:

**Town of Oakville**  
**Kristina Parker, M.A.Sc., P.Eng.**  
Water Resources Engineer  
Development Engineering  
Town of Oakville  
1225 Trafalgar Road  
Oakville, ON L6H 0H3  
Phone: (905) 845-6601 ext. 3889  
Fax: (905) 338-4414  
Email: [kristina.parker@oakville.ca](mailto:kristina.parker@oakville.ca)

**Wood Environment & Infrastructure Solutions**  
**Steve Chipps, P.Eng.**  
Associate, Senior Water Resources Engineer  
Wood Environment & Infrastructure Solutions  
3450 Harvester Road  
Burlington, ON L7N 3W5  
Phone: (905) 335-2353 ext. 3114  
Toll Free: 1-866-751-2353  
Fax: (905) 335-1414  
Email: [steve.chipps@woodplc.com](mailto:steve.chipps@woodplc.com)



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**PLEASE PRINT**

NAME: \_\_\_\_\_

E-mail: \_\_\_\_\_

(Number & Street) \_\_\_\_\_

(Municipality) \_\_\_\_\_

(Postal Code) \_\_\_\_\_



**Comments:**

PLEASE KEEP ME INFORMED OF THE  
PROGRESS OF THE FLOOD MITIGATION PROJECT  
AS WELL AS ANY INFO SESSIONS/PUBLIC  
HEARINGS.

YOUR WORK ON THIS IS APPRECIATED.

Please send your comments by July 3, 2019 to:

**Town of Oakville**  
**Kristina Parker, M.A.Sc., P.Eng.**  
Water Resources Engineer  
Development Engineering  
Town of Oakville  
1225 Trafalgar Road  
Oakville, ON L6H 0H3  
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(Number & Street) \_\_\_\_\_  
(Municipality) \_\_\_\_\_  
(Postal Code) \_\_\_\_\_

**Comments:**

1) CAN YOU PLEASE <sup>INCLUDE ME IN THE</sup> EMAIL LIST FOR  
public forums?  
2) I would like to also know  
if I ~~am~~ my house will be flooded  
with the 100 yr flood.

Please send your comments by July 3, 2019 to:

**Town of Oakville**  
**Kristina Parker, M.A.Sc., P.Eng.**  
Water Resources Engineer  
Development Engineering  
Town of Oakville  
1225 Trafalgar Road  
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NAME: \_\_\_\_\_

E-mail: \_\_\_\_\_

(Number & Street) \_\_\_\_\_

(Municipality) \_\_\_\_\_

(Postal Code) \_\_\_\_\_



**Comments:**

thanks for the session it is clear what you are  
doing to prevent future flooding

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Please send your comments by July 3, 2019 to:

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 Water Resources Engineer  
 Development Engineering  
 Town of Oakville  
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(Number & Street) \_\_\_\_\_

(Municipality) \_\_\_\_\_

(Postal Code) \_\_\_\_\_

Comments:

THE LOWER WEDGEWOOD STREAMS IS AT TIMES  
 BACKED UP BY A BLOCKAGE AT THE STREAM  
 MOUTH BY LAKE ONTARIO. NOT SURE HOW TO  
 HANDLE THU BUT JUST AN OBSERVATION AS  
 WE WALK THERE OFTEN

SPECIFIC TO MY PROPERTY, WE HAVE A LARGE  
 RETAINING WALL ALONG THE STREAM. WE ARE  
 CONCERNED SOME TREES HAVE BEEN REMOVED  
 WHICH STABILISED THE BANK AND OUR PROPERTY.  
 GIVEN THE AGE OF THE RETAINING WALL, WE WORRY  
 ABOUT OUR PROPERTY SUBSIDING IF THERE IS A  
 BAD STORM THAT ERODES THE BANK

THANK YOU FOR THE CONSULTATION AND OPPORTUNITY  
 Please send your comments by July 3, 2019 to:

**Town of Oakville**  
**Kristina Parker, M.A.Sc., P.Eng.**  
 Water Resources Engineer  
 Development Engineering  
 Town of Oakville  
 1225 Trafalgar Road  
 Oakville, ON L6H 0H3  
 Phone: (905) 845-6601 ext. 3889  
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NAME: \_\_\_\_\_

E-mail: \_\_\_\_\_

(Number & Street) \_\_\_\_\_

(Municipality) \_\_\_\_\_

(Postal Code) \_\_\_\_\_

Comments:

- Looking for PROPERTY LEVEL SOLUTIONS FOR IDENTIFIED AT RISK PROPERTIES ie RETAINING SOLUTIONS

- GRANT PROGRAMS TO INSTALL SUCH ie ARMOUR STONE BREAKWALLS

- Looking for yownd / CONSERVATION AUTHORITY TO CONTROL BETTER WATER FLOW ON LOWER CREEK AREAS DURING STORM EVENTS VITAL

Please send your comments by July 3, 2019 to:

**Town of Oakville**  
**Kristina Parker, M.A.Sc., P.Eng.**  
 Water Resources Engineer  
 Development Engineering  
 Town of Oakville  
 1225 Trafalgar Road  
 Oakville, ON L6H 0H3  
 Phone: (905) 845-6601 ext. 3889  
 Fax: (905) 338-4414  
 Email: [kristina.parker@oakville.ca](mailto:kristina.parker@oakville.ca)

**Wood Environment & Infrastructure Solutions**  
**Steve Chipps, P.Eng.**  
 Associate, Senior Water Resources Engineer  
 Wood Environment & Infrastructure Solutions  
 3450 Harvester Road  
 Burlington, ON L7N 3W5  
 Phone: (905) 335-2353 ext. 3114  
 Toll Free: 1-866-751-2353  
 Fax: (905) 335-1414  
 Email: [steve.chipps@woodplc.com](mailto:steve.chipps@woodplc.com)



OAKVILLE

PUBLIC INFORMATION CENTRE No. 1

JUNE 18, 2019

COMMENT SHEET

**PROJECT:** Flood Mitigation Opportunities Study  
Lower Morrison and Lower Wedgewood Creeks

**PLEASE PRINT**

NAME: J

E-mail: \_\_\_\_\_

(Number & Street) \_\_\_\_\_

(Municipality) \_\_\_\_\_

(Postal Code) \_\_\_\_\_



**Comments:**

- ensure infill development includes  
proper drainage + stormwater mgmt  
Then ensure that a proper inspection  
is done to actually ensure that  
things are done right prior to  
issuing an occupancy permit.  
It seems that ~~currently~~ current  
inspections don't put enough  
emphasis on this.

- consider restricting the amount of  
impermeable surfaces allowed in  
new development - including infill.

Please send your comments by July 3, 2019 to:

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**Kristina Parker, M.A.Sc., P.Eng.**  
Water Resources Engineer  
Development Engineering  
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OAKVILLE

PUBLIC INFORMATION CENTRE No. 1

JUNE 18, 2019

COMMENT SHEET

**PROJECT:** Flood Mitigation Opportunities Study  
Lower Morrison and Lower Wedgewood Creeks

**PLEASE PRINT**

NAME: \_\_\_\_\_

E-mail: \_\_\_\_\_

(Number & Street) \_\_\_\_\_

(Municipality) \_\_\_\_\_

(Postal Code) \_\_\_\_\_

**Comments:**

Would it help prevent flooding in our area if the streambed <sup>northern</sup> going under the bridge by Cornwall and Watson were regularly cleared of bushes? Could these bushes create a blockage when material passing downstream meets them?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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\_\_\_\_\_

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Please send your comments by July 3, 2019 to:

**Town of Oakville**  
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To be the most livable town in Canada.

## Notice of Public Consultation

Lower Morrison and Wedgewood Creeks Flood Mitigation Opportunities Study

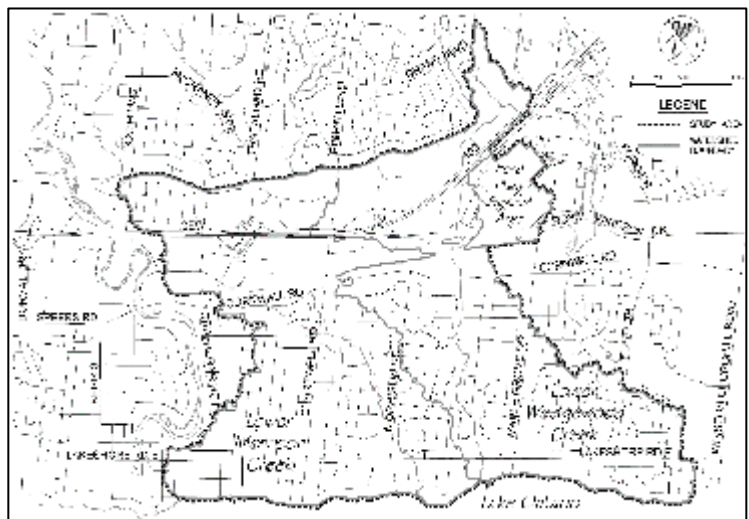
**Thursday December 17<sup>th</sup>, 2020 – Materials available online**

<https://www.oakville.ca/environment/lower-morrison-wedgewood-studies.html>

### Your input is important!

The Town of Oakville has initiated a Municipal Class Environmental Assessment (Class EA) for the Flood Mitigation Opportunities Study for Lower Morrison and Lower Wedgewood Creeks.

Town staff are seeking public input related to this project, including preferred mitigation measures, evaluation criteria, potential environmental effects, and any other concerns.



The study is being conducted in compliance with Schedule 'C' of the Municipal Class Environmental Assessment (October 2000, as amended in 2007, 2011 and 2015), which is approved under the Ontario Environmental Assessment Act. This will be the second public consultation for the Flood Mitigation Opportunities Study.

Due to COVID-19 restrictions, this will be a **virtual public consultation**. A summary of materials will be made available on the Town's website above, and comments on the preferred solution are invited. Please direct all comments, concerns and input on the project from this consultation to the following contacts via email, mail or phone call **by January 20, 2021**.

**Kristina Parker, P. Eng.**  
Town of Oakville  
(905) 845-6601 Ext. 3889  
[kristina.parker@oakville.ca](mailto:kristina.parker@oakville.ca)

**Steve Chipps, P.Eng.**  
Project Manager, Wood  
(905) 335-2353 Ext. 3114  
[Steve.chipps@woodplc.com](mailto:Steve.chipps@woodplc.com)

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

From: [REDACTED]  
Sent: Tuesday, June 18, 2019 7:18 PM  
To: kristina.parker@oakville.ca  
Cc: Chipps, Steve <steve.chipps@woodplc.com>  
Subject: Lower Morrison and Wedgewood Creeks - Flood Mitigation Study

Hello Kristina,  
I attended your Lower Morrison and Wedgewood Creeks - Flood Mitigation Study meeting on Tuesday, June 18. The study looks very organized and thorough, and the information is much appreciated.

Could you tell me please the approximate planned completion timing for each Phase, including implementation, as I don't remember seeing it on your presentation charts.

Thanks,

[REDACTED]

Oakville



November 27, 2020

Kristina Parker, M.A.Sc., P. Eng.  
Development Engineering  
Town of Oakville  
1225 Trafalgar Road  
Oakville, ON L6H 0H3

**BY EMAIL (kristina.parker@oakville.ca)**

Dear Ms. Parker:

**Re: Draft Alternative Assessment  
Lower Morrison and Lower Wedgewood Creeks Flood Mitigation Opportunities Study  
Town of Oakville  
CH File: MPR 696**

Thank you for the opportunity to review the draft alternative assessment memo for the Lower Morrison Creek and Lower Wedgewood Creek submitted by Wood on behalf of the Town of Oakville (dated September 21, 2020).

### General Comments

As previously noted in our May 6, 2020 letter regarding the assessment of the long list of flood mitigation alternatives, CH staff is supportive of the majority of the alternatives being considered as these would mitigate flooding and likely meet CH's regulatory requirements, subject to further technical review and CH permit issuance at detailed design (i.e. culvert/bridge upgrades, floodplain/watercourse channel improvements, flood proofing buildings/site alterations).

We request that the following comments be addressed as part of the flood mitigation opportunities study or incorporated in a Commitment List to be addressed in subsequent studies that will advance the preferred alternatives.

### Comments on Short-listed Alternatives

1. *Structural Floodproofing via Small Berms* – Any work in the regulated area associated with this alternative will require a permit from CH. Any grading within the floodplain must demonstrate no increased risk and may require compensation to flood conveyance or flood storage. The regulated area and floodplain would remain unaltered should any berm be constructed.
2. *Crossing Upgrades* – A permit for each crossing upgrade will be required should this alternative be pursued.
3. *Underground Offline Storage* – A permit from CH will be required for any work within the regulated area. Staff would like to review the resulting hydrology and hydraulic analysis as part of future studies should an inlet be introduced. Additionally, the following should be considered as part of future studies:
  - The impact climate change has on the inlet design and the frequency of tank pump/discharge. This may include introducing an adjustable inlet.
  - Tank monitoring, discharge frequency and methodology.
  - Discharge location(s), draw-down time, flow rates and erosion protection.

- Water discharge quality and any ecological impacts.
- Environmental Flow Needs Assessment for Lower Morrison Creek downstream of the proposed offline storage;

Note that the regulatory limit and associated floodplain would not change.

4. *Flow Diversion* – Staff are generally not supportive of the diversion of flows from one watershed to another. Should this alternative be developed further, such an alteration would require detailed justification. The hydraulic, hydrologic and erosive impact of diverting flows to Sixteen Mile Creek should be evaluated, along with all potential impacts to the 'losing stream', Lower Morrison Creek. Hydraulic models are available for Sixteen Mile Creek to help facilitate the analysis.

Areas of analysis for both creek systems may include, but are not limited to:

- Determining the change in peak flow rates for the full range of storm events (2-year to 100-year and Regional).
  - Determining the change on water surface elevations and velocities for the full range of storm events. Any changes should not negatively impact existing lands.
  - Evaluating erosive impacts.
  - Evaluating impacts to base flow.
  - Impact of climate change.
  - Environmental Flow Needs Assessment for Lower Morrison Creek downstream of the proposed diversion
  - Fluvial Geomorphological Studies for Lower Morrison Creek and Sixteen Mile Creek downstream of the proposed diversions and at locations of inlets and outlets;
  - Fish community and fish habitat impact assessment of Lower Morrison Creek and Sixteen Mile Creek downstream of flow diversion. Study needs to include:
    - o impacts of the flow diversion on the various life processes of all aquatic species present;
    - o fish passage study.
5. A Natural Heritage System Assessment for Lower Morrison and Lower Wedgewood Creeks should be conducted as part of future studies to provide a comprehensive discussion of potential impacts and mitigation measures on the natural environment for the proposed alternatives.

Thank you for the opportunity to review and comment on the draft assessment of alternatives to mitigate flood risk in the Lower Morrison Creek and Lower Wedgewood Creek watersheds. Please contact the undersigned at extension 2311 with any questions or to schedule a meeting to discuss these comments further.

Sincerely,



Matt Howatt  
Team Lead, Regional Infrastructure Team / Environmental Planner

CC: Steve Chipps, Wood  
Diana Friesen, Town of Oakville







## Baseline Studies:

Baseline studies are prepared to describe the current biological and physical environment conditions.

A Study Area wide hydrologic/hydraulic study will be undertaken to update the characterization of the flood prone sites identified in the 2008 Town Wide Flood Study. The balance of the baseline investigations will be undertaken on a site specific basis for the priority flood mitigation opportunities, once determined, to ensure any biological and physical environment impacts can be mitigated.

A Class EA is a decision-making and planning process that identifies potential effects of projects, such as road improvements, so that they can be managed prior to implementation

### Biological Environment

- Fisheries and Aquatic Assessment
- Terrestrial Assessment

### Physical Environment

- Hydrology (lakes, rivers, etc.) and Hydraulics Assessment
- Stream Morphology

## Potential Project-related effects:

Potential effects from the proposed project will depend on the results of the flood mitigation alternatives assessment. With the 2008 study as the guiding document, a series of flood mitigation solutions will be characterized for each of the flood prone sites. Flood mitigation efficacy, cost, and advantages/disadvantages related to the environment and public will be described.

## Schedule and Past Steps:

- Evaluation of flood mitigation opportunities 2017 to 2020
- Field Studies 2018
- First Public Information Centre 2019
- Second Public Information Centre 2020
- Environmental Study Report 2022

## Additional Information:

For more information about this project, please visit:

<http://www.oakville.ca/environment/lower-morrison-wedgewood-studies.html>

## Contact Information

Town of Oakville  
 Kristina Parker, P. Eng.  
 Water Resources Engineer, Project Manager  
 1225 Trafalgar Road  
 Oakville, Ontario L6H 0H3  
 905-845-6601 Ext. 3889  
 kristina.parker@oakville.ca

John Wood Group plc  
 Steve Chipps, P.Eng.  
 Water Resources Engineer, Project Manager  
 2020 Winston Park Drive Suite 700  
 Oakville, ON L6H 6X7  
 905-335-2353 Ext. 3114  
 Steve.chipps@woodplc.com



# Public Information Centre No. 2

## Flood Mitigation Opportunities Study

### Lower Morrison and Lower Wedgewood Creeks

Town of Oakville

Online - December 17, 2020



# 1. Study Overview, Purpose and Goals

---

- The Town of Oakville is undertaking Municipal Class Environmental Assessment (Class EA) for the Flood Mitigation Opportunities Study for Lower Morrison and Lower Wedgewood Creeks.
- The first Public Information Centre (PIC) was held June 18, 2019 to obtain input from the public on flooding risks within the study area.
- The purpose of this second PIC is to present the alternative assessment and resulting preliminary preferred solutions and receive input from the public.
- The Study will allow town staff to gain an understanding of the existing flood risks within both creek systems, and assess flood mitigation alternatives leading to recommended capital projects for flood mitigation.
- Study Goals include:
  - Improve understanding of flood risks within both creek systems
  - Reduce flood risks to the public, property, buildings and infrastructure
  - Seek opportunities to improve stormwater management planning practices
  - Build climate change resiliency



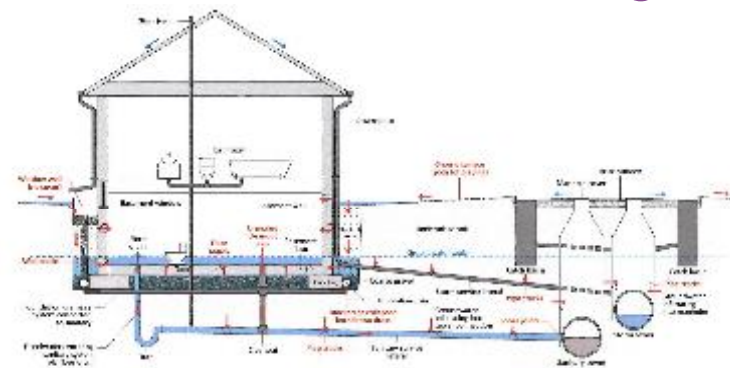
## 2. Flooding Mechanisms

The Flood Mitigation Opportunities Study focuses on flood risks associated with fluvial/riverine flooding resulting from the hydraulic performance of the creek systems.

### Fluvial/Riverine Flooding ✓



### Foundation Drain Flooding ✗

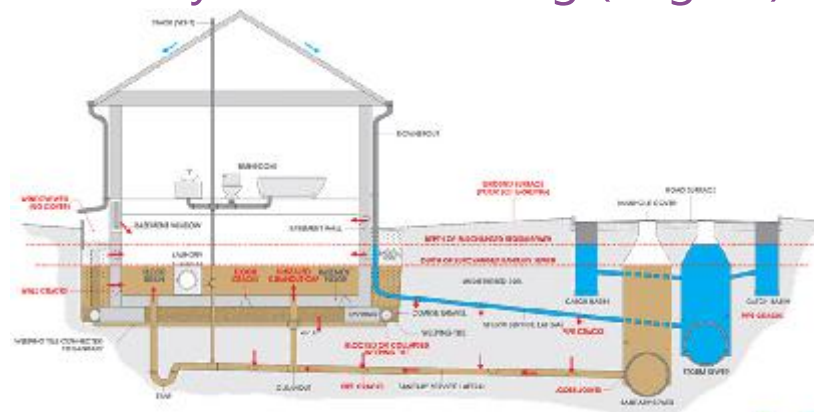


Source: ICLR Handbook for Reducing Basement Flooding

### Urban Flooding ✗



### Sanitary Sewer Flooding (Region) ✗



# 3. Study Approach and Methodology

## Approach

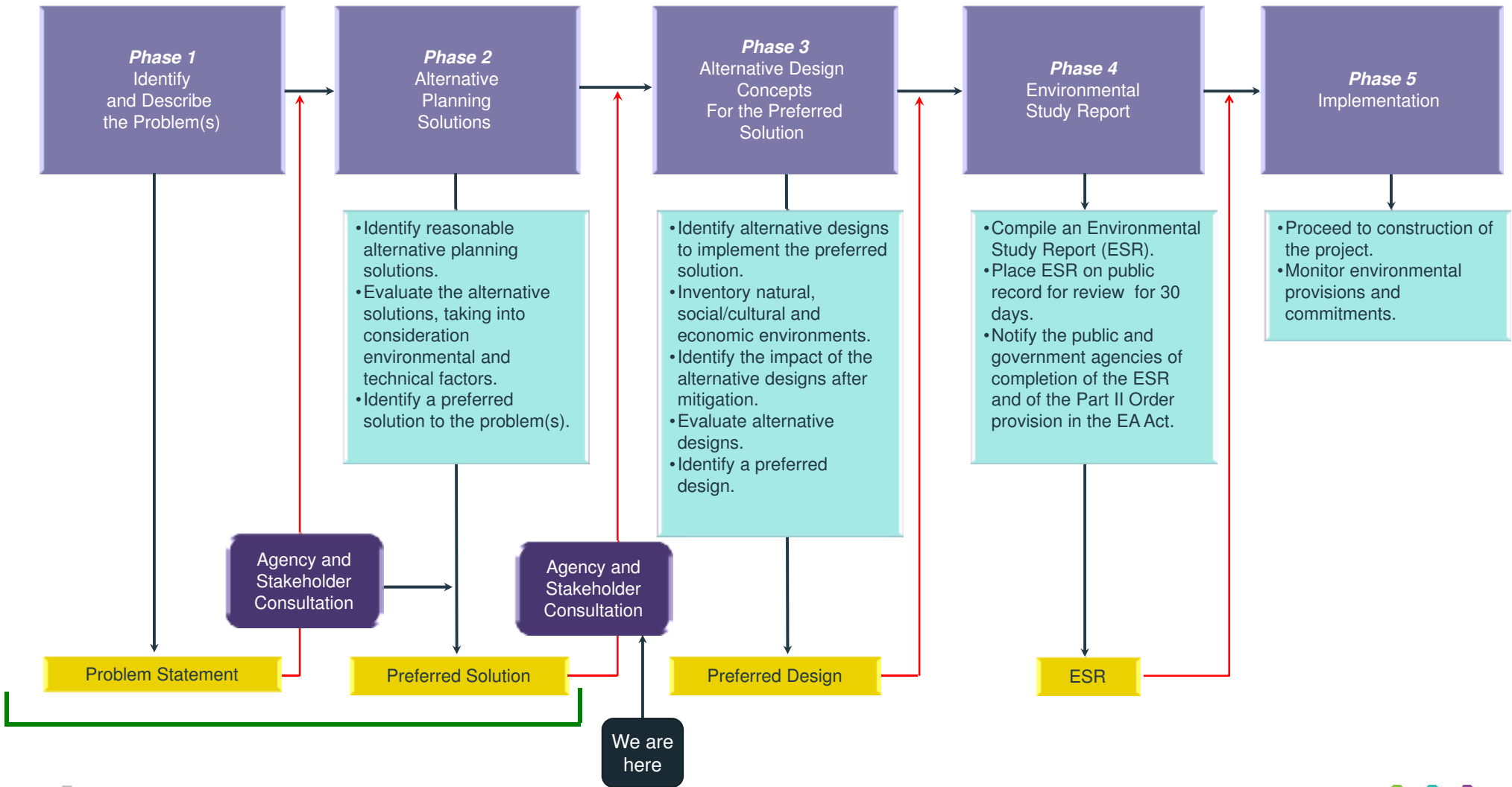
- Assess the hydraulic performance of the existing creek systems
- Develop a long-term plan for reducing flood risk
- Establish a set of priority-based actions
- Recommend municipally-led capital works to address flood risks within Lower Morrison and Lower Wedgewood Creeks



## Methodology

- Data collection / reconnaissance
- Field survey of creek crossings
- Numerical modelling to determine flow rates in creeks
- Numerical modelling to determine flood elevations and velocities in creeks
- Performance evaluation of flood plains and crossings for:
  - Lower Morrison Creek
  - Lower Wedgewood Creek
- Systematic alternative assessment, considering:
  - Natural environment
  - Social environment
  - Economic environment

# 4. Municipal Class EA Process

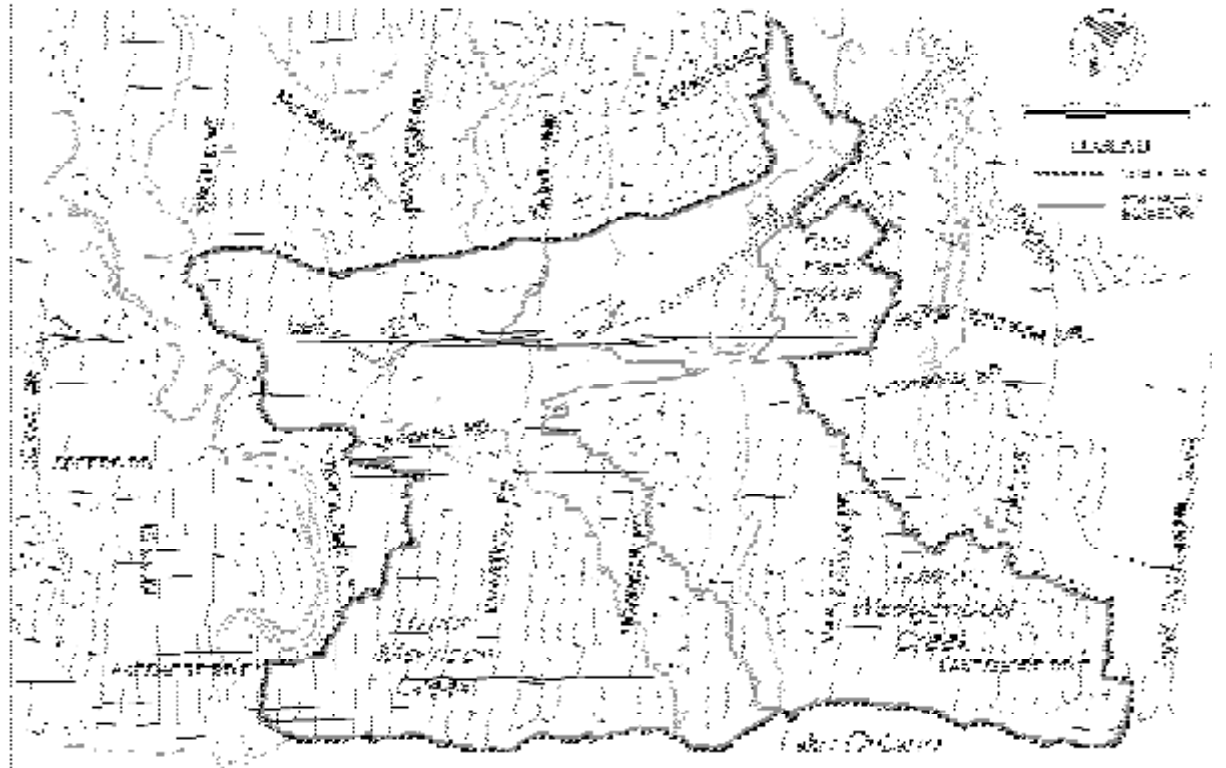




## 5. Study Area Map

The Study Area is defined based on the drainage boundaries for the Lower Morrison and Lower Wedgewood Creeks.

Based on the age of development, most of the creek systems are located within private property.



The Morrison-Wedgewood Diversion Channel was constructed in the late 1960s to reduce the flood risk to residential neighborhoods in the south. The channel intercepts natural flow from five smaller creeks and combines them to a single channel redirecting flow to Sixteen Mile Creek.







## 7. Phase 1 Study Outcomes

Flood risks determined for the 100 year storm (1% chance occurring in a given year). For 100 year storm (produces highest flows) the following are at risk:

### Lower Morrison Creek

- 150 properties
- 33 buildings

### Lower Wedgewood Creek

- 189 properties
- 68 buildings

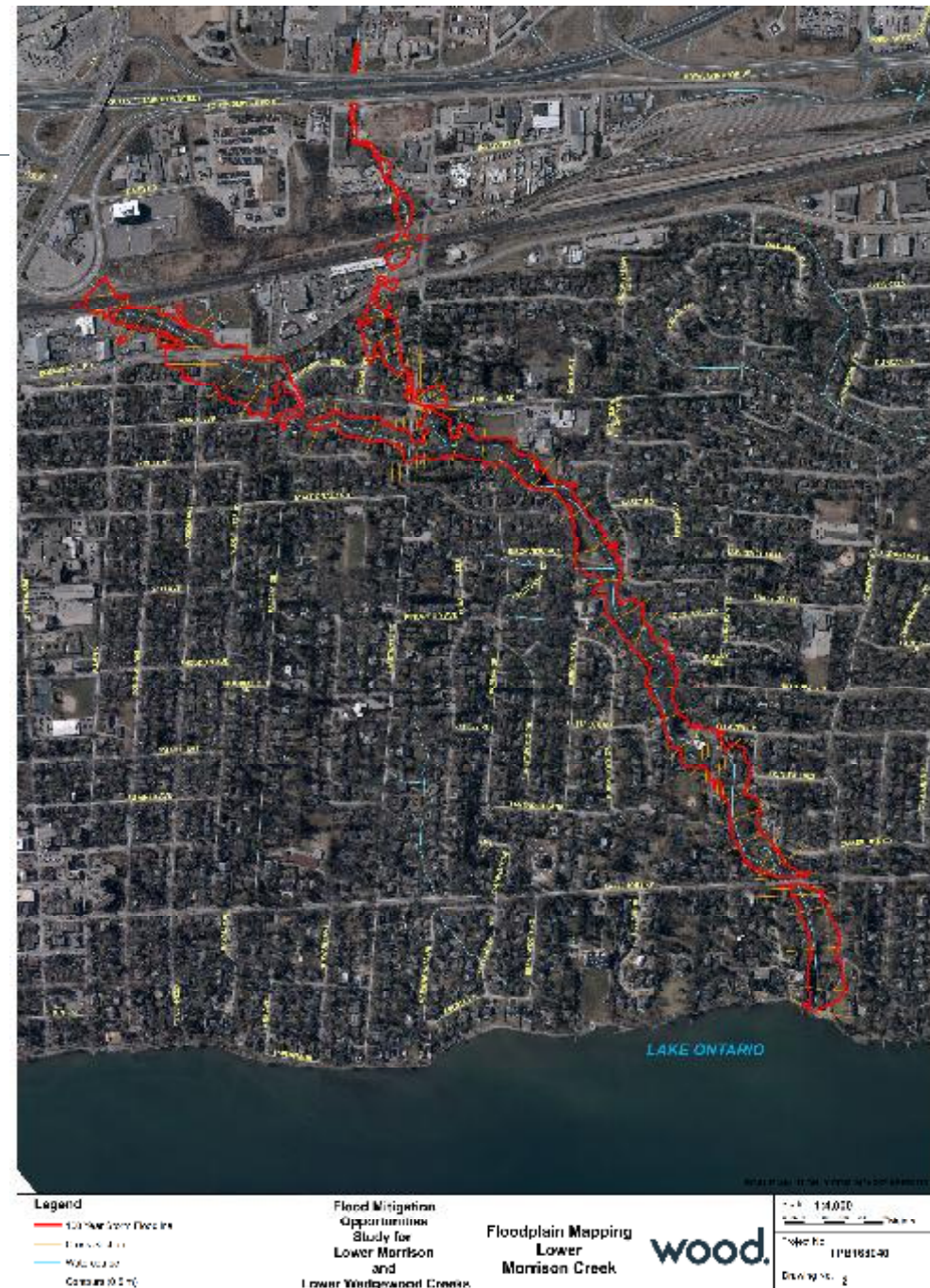




## 7. Phase 1 Study Outcomes

See file attachment: “100 Year Storm Floodplain Mapping for Lower Morrison Creek.pdf”.

→ Spill areas are shown as red arrows near the upper section of the creek system where portions of the floodplain are not physically contained within the valley or stream corridor and exit (or “spill”) into surrounding lands and/or adjacent creek watersheds.

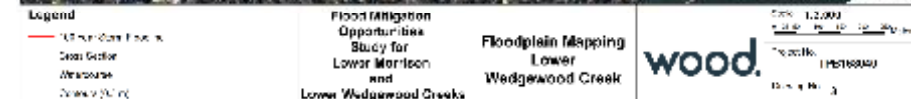
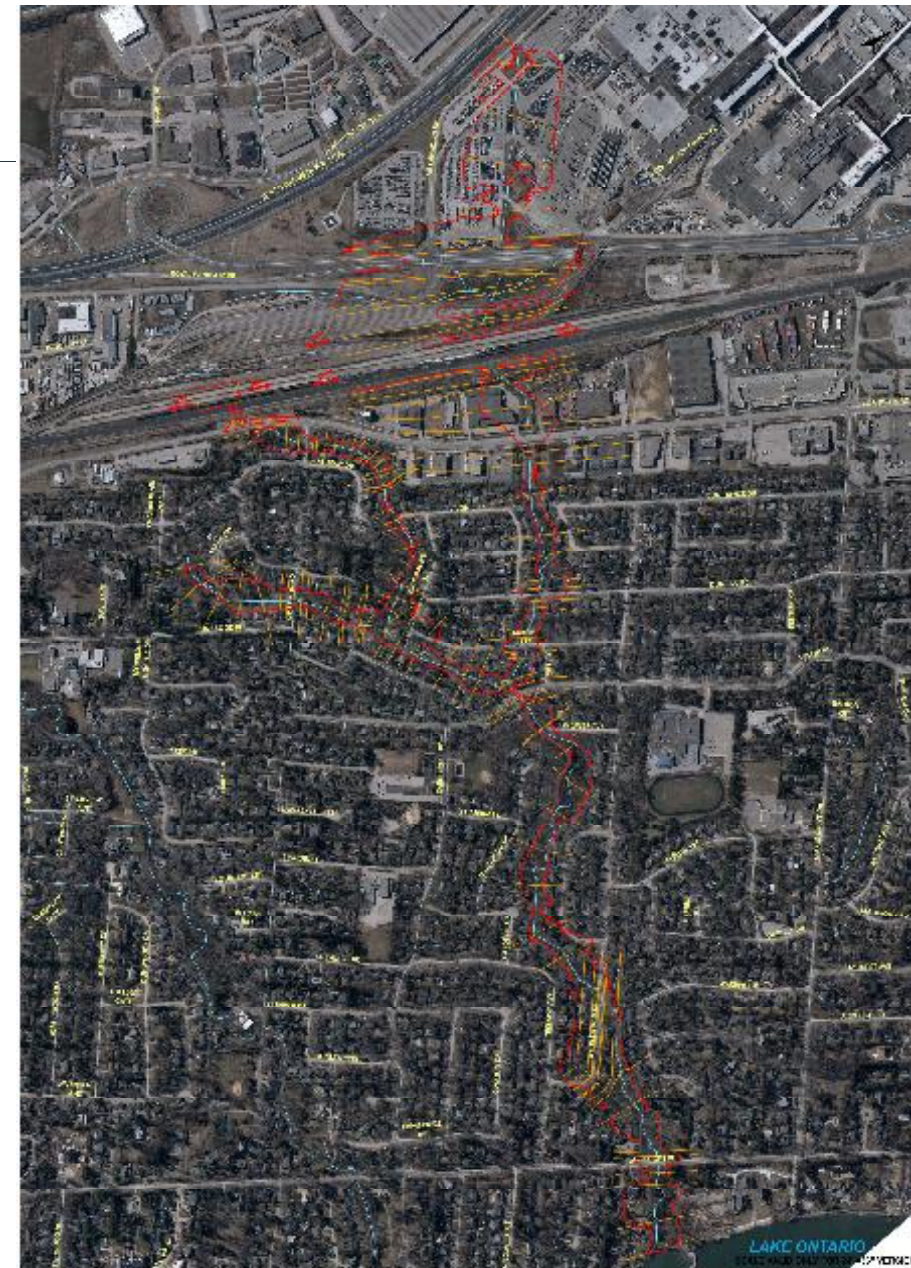




## 7.Phase 1 Study Outcomes

See file attachment: “100 Year Storm Floodplain Mapping for Lower Wedgewood Creek.pdf”.

→ Spill areas are shown as red arrows near the upper section of the creek system where portions of the floodplain are not physically contained within the valley or stream corridor and exit (or “spill”) into surrounding lands and/or adjacent creek watersheds.

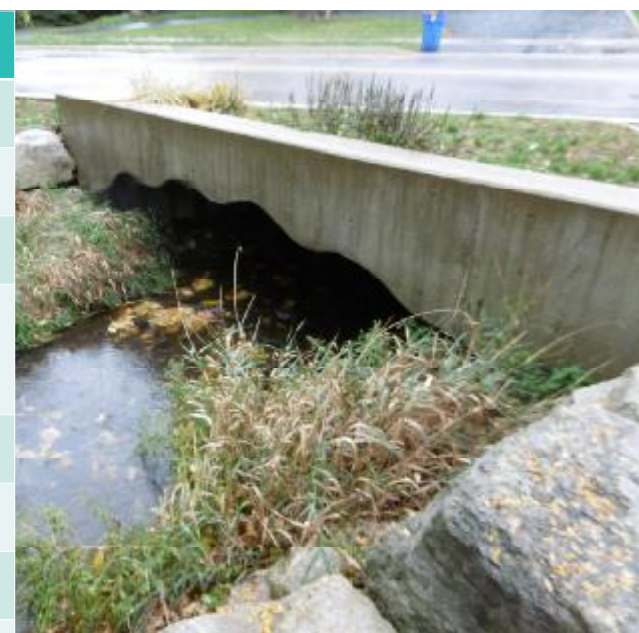


## 7. Phase 1 Study Outcomes

### Bridges/ Culverts

- Crossings of the creeks consist of roads, pedestrian bridges and rail lines
- Crossings are either bridges or culverts of various sizes and forms
- The following road crossings are considered deficient based on current town and Provincial standards, although there are varying levels of deficiency.

Morrison Creek	Wedgewood Creek
Lakeshore Road	Lakeshore Road
Morrison Road	Wedgewood Drive
Linbrook Road	Devon Road
Chartwell Road (2 Crossings)	Cumnock Crescent
Cornwall Road	Morrison Road (2 Crossings)
Maple Ave	Cornwall Road
	Duncan Road
	Amber Crescent
	Royal Windsor Drive



Wedgewood Drive Crossing



## 8. Long-list of Flood Management Alternatives

### Structural Solutions

- **Crossing Upgrades:** Replace and/or modify creek crossings to better convey flows.
- **Floodplain/ Channel Improvements:** Improve the grading of the channel and/or floodplain to increase flow capacity.
- **Roadway Profile Modifications:** Optimize road profile to reduce upstream flooding and to allow vehicle passage and emergency access during flood conditions
- **Flood Proofing Buildings (Localized Protection):** Buildings can be flood proofed by sealing low openings and/or local berming and flood walls.
- **Flow Diversions:** Drainage can be diverted away from high flood risk areas to locations further downstream within the same creek or to another creek system which have available and safe capacity using channels and/ or piped systems.



## 8. Long-list of Flood Management Alternatives

- **Flood Storage (Ponds and Tanks):** Peak flows can be reduced by temporarily storing runoff and releasing it over a longer period of time.
- **Reduce Risk of Culvert Blockages:** Replace and/or modify creek crossings better mitigate against frequent blockages.
- **Low Impact Development (LID) Best Management Practices (BMPs):** LID BMPs can temporarily store or infiltrate local drainage for the more frequent storm events (i.e. 2 to 5 year), therefore reducing flows in creeks.



## 8. Long-list of Flood Management Alternatives

### Non-structural Solutions

#### Public Education

- Maintenance of storm drainage systems, including creeks on, or near, private property requires cooperation from the public to ensure they function properly.
- Education programs to inform the public of the need for storm drainage systems, and the importance of ensuring their continued operation.

#### Emergency Preparedness

- Focus on areas identified through the Study that are at-risk of flooding.
- Knowledge of these locations, coupled with advanced warning of severe storms, allows the town to pro-actively address potential flood issues or notify the public of flood potential.

#### Policy Amendments

- Various emerging directions exist in the stormwater management field:
  - Provincial requirements for source control approach for stormwater management
- The Town's current Policies, By-Laws, and Guidelines related to stormwater and environmental protection/management may need to be amended to address emerging matters.



## 9. Evaluation of Alternatives

- Long-list of alternatives has been screened at a high-level based upon feasibility and anticipated effectiveness in reducing flood risk to develop a short list of alternatives.
- The short list of alternatives has been evaluated using a qualitative evaluation system using ratings of Negative, Negative/ neutral, Neutral, Neutral/ Positive, Positive, and a set of evaluation factors.
- Evaluation Categories consist of the following:
  - **Functional** – Impacts that the alternative may have the flow conveyance system.
  - **Environmental** – Potential impacts or benefits that alternatives may have on natural systems.
  - **Social** – Impacts/issues relating to the interaction of the community/neighbourhood with the implementation of the proposed alternative
  - **Economic** – Immediate and future costs and cost-benefit of the alternative including operations and maintenance.

# 9. Evaluation of Alternatives



## Evaluation Criteria per Municipal Class EA

Evaluation Category	Evaluation Criteria	Criteria Description
<b>Functional</b>	Effective (Provides Flood Protection for Properties)	<ul style="list-style-type: none"> <li>The extent to which the alternative reduces or eliminates flood risk to properties and buildings.</li> </ul>
	Ease of Implementation	<ul style="list-style-type: none"> <li>Are there minimal or significant considerations required to implement the alternative.</li> </ul>
<b>Environmental</b>	Impacts to Aquatic Systems	<ul style="list-style-type: none"> <li>The extent to which the alternative results in a negative or positive aquatic resource impact or benefit.</li> </ul>
	Impacts to Terrestrial Systems	<ul style="list-style-type: none"> <li>The extent to which the alternative results in a negative or positive terrestrial resource impact or benefit.</li> </ul>
<b>Social</b>	Private Property	<ul style="list-style-type: none"> <li>The extent to which the alternative results in a negative or positive private property impact or benefit (e.g. improved use of property based on reduced flood risk).</li> </ul>
	Recreational Activities	<ul style="list-style-type: none"> <li>The extent to which the alternative results in a negative or positive recreational activity impact or benefit (e.g. improved use of park or open space).</li> </ul>
	Public Safety	<ul style="list-style-type: none"> <li>The extent to which the alternative results in a negative or positive public safety impact or benefit.</li> </ul>
	Public Acceptance	<ul style="list-style-type: none"> <li>The extent to which the public will or will not accept the recommended alternative.</li> </ul>
<b>Economic</b>	Capital Costs	<ul style="list-style-type: none"> <li>High capital costs are negative, while low capital costs are positive.</li> </ul>
	Operation and Maintenance Costs	<ul style="list-style-type: none"> <li>High operation and maintenance costs are negative, while low operation and maintenance costs are positive.</li> </ul>

# 10. Preliminary Preferred Flood Management Alternatives



## Culvert Upgrades

The preliminary preferred alternatives based upon the short-listed alternative assessment include recommended crossing upgrades, localized flood proofing and flood storage. The following summarizes the preferred culvert upgrades:

Location	Existing Culvert	Proposed Culvert
<b>Lower Morrison Creek</b>		
Lakeshore Road	7.9m by 3.2m	14.6m by 3.4m
Linbrook Road	7.3m by 1.5m	7.3m by 2.1m
Chartwell Road (N. of Linbrook Road)	Twin 3m by 2.1m	6.4m by 2.4m
Chartwell Road (S. of Linbrook Road)	3m by 1.6m	6.1m by 1.5m
<b>Lower Wedgewood Creek</b>		
Lakeshore Road	3.8m by 1.9m	14.6m by 3m
Warren Drive Park	4.2m by 1.5m	7.3m by 1.5m
Wedgewood Drive	5.5m by 2.1m	7.3m by 1.5m
Cornwall Road (N. of Pond)	Twin 1.8m by 1.2m	7.3m by 1.5m



## 10. Preliminary Preferred Flood Management Alternatives



### Flood Storage

Town lands have also been considered for flood storage to reduce flows. Based on assessment of the alternatives, the Cornwall Road Park could be used to locate an underground flood storage tank to reduce flows in Lower Morrison Creek.

### Localized Flood Protection

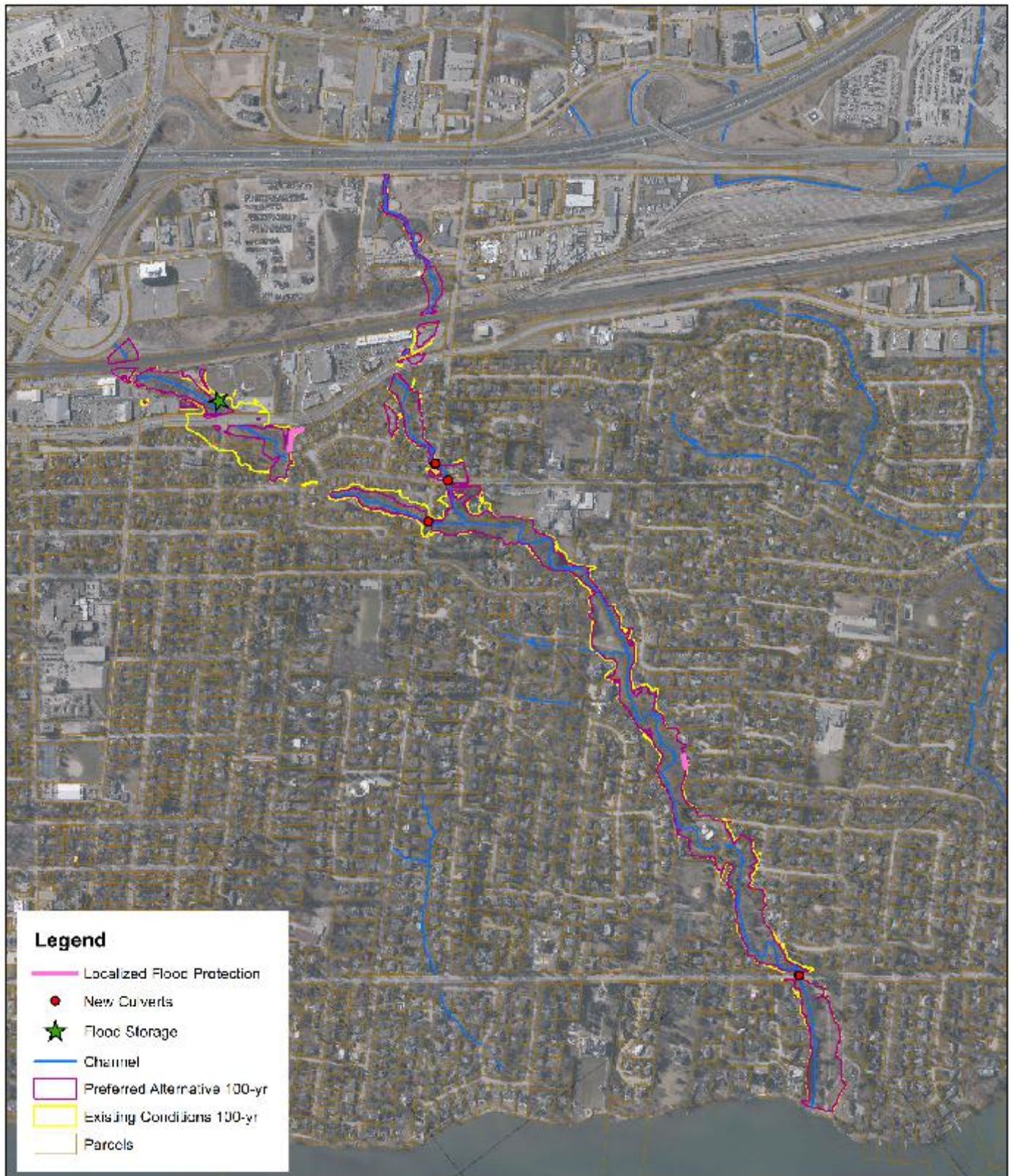
There are opportunities to provide localized flood protection to residential properties using local flood protection berms or other methods.







### 9. Preliminary Preferred Flood Management Alternatives



**Legend**

-  Localized Flood Protection
-  New Culverts
-  Flood Storage
-  Channel
-  Preferred Alternative 100-yr
-  Existing Conditions 100-yr
-  Parcels



**LOWER MORRISON CREEK & LOWER WEDGEWOOD CREEK FLOOD MITIGATION STUDY**

**EXISTING CONDITION VS. PREFERRED ALTERNATIVE 100 YEAR FLOODLINES LOWER MORRISON CREEK**



Scale **1:12,500**



Project No. **TPB168040**

Figure No. **2**





### 9. Preliminary Preferred Flood Management Alternatives





# 10. Preliminary Preferred Flood Management Alternatives



## Flood Risk Reduction Benefit

Based on the preferred flood mitigation alternatives, a number of properties and buildings will benefit with reduced flood risk, or removal from flooding.

### Summary of Flood Risk Reduction Benefits Resulting from Alternatives

#### Lower Morrison Creek

Storm Event	Existing Number of at Risk Properties	Existing Number of at Risk Buildings	Properties with Reduced Flood Risk	Buildings with Reduced Flood Risk	Properties Removed from Floodplain	Buildings Removed from Floodplain
10 year	88	21	58	3	25	5
25 year	118	28	60	10	25	12
100 year	150	33	78	16	31	18

#### Lower Wedgewood Creek

Storm Event	Existing Number of at Risk Properties	Existing Number of at Risk Buildings	Properties with Reduced Flood Risk	Buildings with Reduced Flood Risk	Properties Removed from Floodplain	Buildings Removed from Floodplain
10 year	151	46	19	8	1	1
25 year	161	60	19	8	2	1
100 year	189	68	10	3	0	0

# 11. Midtown Assessment

## Flood Control via Stormwater Management Quantity Controls in Planned Development Areas (Midtown)

### Midtown Area Stormwater Management Criteria

- The Midtown Area will require stormwater management (SWM) controls for future development.
- The SWM controls will prevent creek erosion and reduce flood risks within Lower Morrison Creek and Lower Wedgewood Creek.
- The type of SWM controls will depend upon the form of development, but is expected to include low impact development best management practices and more traditional forms of SWM (i.e. above and below ground storage).



Midtown – the area around the Oakville GO Station has been identified as an Urban Growth Centre in 2006 Growth Plan, with the area to transform into an urban mixed community for 12,000 people and 8,000 jobs by 2031.

## 12. Implementation Considerations

---

### Implementation Considerations/Challenges:

- The Preliminary Preferred Solutions outlined in this Study consist of a set of projects of varying complexity with respect to implementation
- Several factors need to be considered by the Municipality through the next phases of planning and design including:
  - *Cost/benefits*
  - *Land ownership*
  - *Agency approvals*
  - *Private property impacts*
  - *Environmental impacts*
- The Town of Oakville will also need to assess these projects in the context of Town-wide priorities to address flood risk across the community



## 13. Next Steps

---

- Receive public comments by January 20, 2021
- Incorporate public input into the Study
- Develop details of Preferred Alternatives
- Assess mitigation requirements of potential negative effects
- Consultation with agencies and stakeholders;
- Prepare and File Environmental Study Report.

## How to Provide Comments

Please direct comments to the following contacts,  
via email, mail or phone by January 20, 2021



▪ By Mail:

**Kristina Parker, P.Eng**

Water Resources Engineer

Town of Oakville

1225 Trafalgar Road, P.O. Box 310

Oakville, ON L6J 5A6

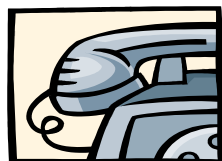
**Steve Chipps, P.Eng.**

Consultant Project Manager

Wood

3450 Harvester Road

Burlington ON L7N 3W5



▪ By Phone:

Tel.: 905-845-6601 ext. 3889

Tel.: 905-335-2353 ext. 3114



▪ By Email:

E-mail: [kristina.parker@oakville.ca](mailto:kristina.parker@oakville.ca)

E-mail: [steve.chipps@woodplc.com](mailto:steve.chipps@woodplc.com)

Thank you for your participation!

From: Species at Risk (MECP) [<mailto:SAROntario@ontario.ca>]

Sent: Tuesday, December 15, 2020 10:57 AM

To: Kristina Parker <[kristina.parker@oakville.ca](mailto:kristina.parker@oakville.ca)>

Subject: Automatic reply: Public Consultation Lower Morrison/Lower Wedgewood Creek Flood Mitigation Opportunities Study

SECURITY CAUTION: This email originated from outside of The Town of Oakville. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Thank you for your inquiry to the Permissions and Compliance team, Species at Risk Branch, Ministry of the Environment, Conservation and Parks.

### **What's New?**

- The Ministry of the Environment, Conservation and Parks (MECP) has responsibility for the administration of the Ontario Endangered Species Act (ESA). In MECP, work associated with ESA authorizations has been centralized from Ministry of Natural Resources and Forestry district offices into one Permissions and Compliance team within the new Species at Risk Branch in MECP.

### **What Next?**

- Your email is being reviewed by branch staff to determine the nature of your inquiry or submission. Your inquiry or submission will then be actioned to someone from our team for follow up as required.
- We strive to follow up with a response to your inquiry within 15 business days to confirm that your submission has been actioned out and to provide contact information.

### **Do you think you may need an ESA permit or authorization?**

- Please visit <https://www.ontario.ca/page/species-risk> to learn more about protecting and recovering species at risk, then navigate to the Resources and Permits section, including [Register or Get a Permit](#) for more information about permits and authorizations under the ESA.
- You only need an authorization under the ESA (e.g. a permit or other type of authorization) if your work is going to contravene the ESA (e.g. if the activity you are proposing is going to kill, harm or harass a species at risk or damage or destroy their habitat). If you are able to undertake your work in a manner that does not contravene the ESA, that is what we call "avoidance" of impacts to species at risk or their habitat and it is the ideal scenario for clients and the species-the species aren't adversely impacted, and you don't need an authorization.

**Do you want to know if any species at risk are at, or near, your project site? Do you need help determining if you need an ESA permit or authorization?**



- We have developed a guide to help clients work through the preliminary screening process, including providing advice to clients on how they can gather information you have requested from publicly available information sources. The guide provides advice on how you can determine if any species at risk are likely to exist at your site. If you are seeking information regarding species at risk likely to occur at or near your site, please send an email to [sarontario@ontario.ca](mailto:sarontario@ontario.ca) and include “request for preliminary screening guide” in the subject line. To provide the most efficient service, it is recommended clients read this guide and explore applicable information sources prior to contacting [sarontario@ontario.ca](mailto:sarontario@ontario.ca) to begin discussions with the Permissions and Compliance team about your proposed project.

### **Do you want to report a suspected violation of the ESA?**

- Please call the MECP Tips/Pollution Hotline at 1-866-663-8477 and provide the details requested. Someone may follow up with you directly to request additional information. We may not be able to follow up with you to provide you an update on the status of your tip as the status of any ongoing inspections or investigations is confidential until resolved.

**We also receive a high volume of inquiries related to Butternut (an endangered tree) to this email address. The following information can assist you if you have some of the more common questions regarding the ESA and impacts to Butternut.**

### **Do you think you may need an ESA permit or authorization to cut down a Butternut tree?**

- If a Butternut tree has been identified, a Butternut Health Assessment will need to be completed to assess the health of the tree in accordance with the document titled [Butternut Assessment Guidelines: Assessment of Butternut Tree Health for the Purposes of the Endangered Species Act, 2007](#). This will determine if the tree is Category 1, 2 or 3.
- Please note that Section 4.2 (Timing of Assessment) on page 10 of the Butternut Assessment Guidelines states that “A complete and accurate assessment of a Butternut tree can only be conducted during the leaf-on season.” It also notes that “For the purposes of the ESA, an assessment will be considered to have been conducted during the leaf-on season if it was conducted between the dates of May 15 and August 31.” For this reason, a Butternut Health Assessment should not be conducted until May 15 in order to get an accurate assessment of the live crown.
- Once a Butternut Health Assessment has been completed and submitted to the MECP and 30 days have elapsed, ESA requirements can be identified as per below:

- If a BHA identifies a tree as a hybrid, no authorization under the ESA is required to remove the tree, as it is not a pure Butternut and not protected under the ESA.
- If a BHA identifies a tree as a Category 1 tree, no authorization under the ESA is required to remove the tree, as it is affected by Butternut canker (a fungal disease) to such an advanced degree that retaining the tree would not support the protection or recovery of Butternuts in the area.
- If a BHA identifies a tree as a Category 2 tree, Registration is enabled under [section 23.7 of the Ontario Regulation 242/08](#) so long as all requirements of the Regulation are met.
- If a BHA identifies a tree as a Category 3 tree, then a [17\(2\)\(c\) Permit](#) is likely required.

If you are proposing to rely on section 23.7 of the Regulation 242/08 for the removal of Category 1 trees or hybrids, please note that you are eligible to do so 30 days after you have submitted your BHA to MECP at [SAROntario@ontario.ca](mailto:SAROntario@ontario.ca) unless the MECP has indicated otherwise prior to the end of the 30 day period.

If you are proposing to rely on section 23.7 of the Regulation 242/08 for the removal of a maximum of 10 Category 2 (retainable) trees, after the 30 days you must register a Notice of Impact with the [ESA Registry](#), and follow additional rules. Once you have registered and received a reply in regards to your Notice of Impact, you may remove up to 10 Category 2 trees.

### **Are you submitting a Butternut Health Assessment?**

- Please submit your Butternut Health Assessment Forms to [sarontario@ontario.ca](mailto:sarontario@ontario.ca). In the subject line, clearly indicate that the email contains a BHA and the municipality within which the BHA was conducted. Once received, the submission will be triaged and actioned.

### **Did you submit a BHA assessment where Category 1, 2 or hybrid trees are impacted?**

- If after the 30 days, you have not received a response from MECP, you may remove Category 1, 2 or hybrid trees so long as all requirements of the Regulation in regards to Category 2 trees are met.

### **Did you recently see a species at risk?**

- Please visit <https://www.ontario.ca/page/report-rare-species-animals-and-plants> for information on how to report a species at risk sighting.

**Would you like to learn more about species at risk and the ESA and its related policies?**

- Please visit <https://www.ontario.ca/page/species-risk>.
- Policies under the ESA, ministry-endorsed survey protocols and a number of best-management practices related to how you can avoid or minimize impacts to species at risk can be found online at <https://www.ontario.ca/page/species-risk-guides-and-resources>.
- General inquiries related to the ESA or species at risk can be directed to [esa-sarinquiries@ontario.ca](mailto:esa-sarinquiries@ontario.ca)



Chipps, Steven

---

From: Kristina Parker <kristina.parker@oakville.ca>  
Sent: Tuesday, December 15, 2020 3:02 PM  
To: Chipps, Steve  
Cc: Diana Friesen  
Subject: FW: Public Consultation Lower Morrison/Lower Wedgewood Creek Flood Mitigation Opportunities Study

**CAUTION:** External email. Please do not click on links/attachments unless you know the content is genuine and safe.

Fyi, response from Enbridge.

**Kristina Parker, M.A.Sc., P.Eng.  
Water Resource Engineer  
Development Services**

Town of Oakville | 905-845-6601, ext.3889 | f: 905-338-4414 | [www.oakville.ca](http://www.oakville.ca)

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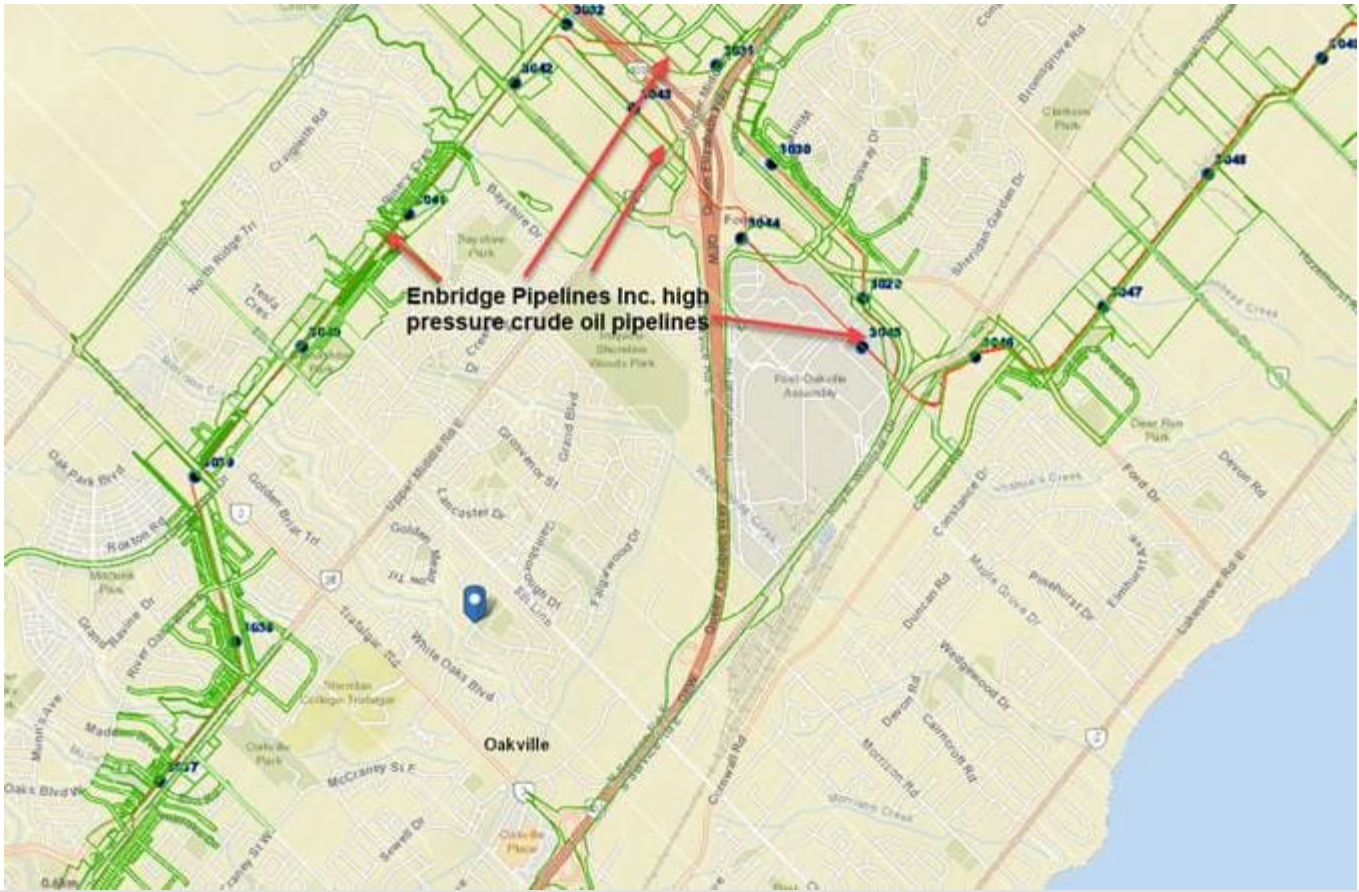
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From: Eastern Region Crossing [mailto:est.reg.crossing@enbridge.com]  
Sent: Tuesday, December 15, 2020 2:59 PM  
To: Kristina Parker <kristina.parker@oakville.ca>  
Subject: RE: Public Consultation Lower Morrison/Lower Wedgewood Creek Flood Mitigation Opportunities Study

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Thank you for your notice

Enbridge Pipelines Inc. (EPI) owns and operates several high pressure crude oil pipelines as per aerial screen shot below.



From: Kristina Parker <[kristina.parker@oakville.ca](mailto:kristina.parker@oakville.ca)>

Sent: Tuesday, December 15, 2020 10:43 AM

Cc: Diana Friesen <[diana.friesen@oakville.ca](mailto:diana.friesen@oakville.ca)>

Subject: [External] Public Consultation Lower Morrison/Lower Wedgewood Creek Flood Mitigation Opportunities Study

**EXTERNAL: PLEASE PROCEED WITH CAUTION.**

This e-mail has originated from outside of the organization. Do not respond, click on links or open attachments unless you recognize the sender or know the content is safe.

FYI

The Lower Morrison and Lower Wedgewood Creeks Flood Mitigation Opportunities Study is an on-going Municipal Class Environmental Assessment (Class EA) being managed by the Development Engineering Department. This study is a follow-up study to the 2008 Town-wide Flood Study. Please find attached a copy of the 'Notice of Public Consultation #2' that has been printed in the Oakville Beaver.

This is the second public consultation for the flood mitigation opportunities study. Town staff are seeking feedback on the preferred alternatives for both channel systems. Due to COVID 19 restriction, public consultation for this study will be carried out using a virtual format. As of December 17<sup>th</sup>, materials will be available on the town's website at the following link: [https://secure-web.cisco.com/12khN\\_wOdlC9oRyOEzHHAqJrjEXF8CMFjveS9HpfME2Ob\\_ft9-bfqo87pX-K4t1dY2TsA2EoTdt33ZS2SQdMhyAfhAm6U6c11TFIYC7TLFDkEQwJmhjC1mXaWDVbw99PeY987swHtW-pPkSR21iScncN46bastX5TDN-g7RT3c0M-NXaNkUlfndPnI3GstBqQmRuNXvFFVvhFq4mcYrrQ3hxzlhCZ3yT5OkSysl2D8DFGtwVqO7jYf\\_my8fr16btoOrVrmFyWUdTuNyKPmUFZRIkuCvXlzkQcSf7K2OStJ3nFmuv\\_CuNyc2kiKZ4z6/https%3A%2F%2Fwww.oakville.ca%2Fenvironment%2Fflower-morrison-wedgewood-studies.html](https://secure-web.cisco.com/12khN_wOdlC9oRyOEzHHAqJrjEXF8CMFjveS9HpfME2Ob_ft9-bfqo87pX-K4t1dY2TsA2EoTdt33ZS2SQdMhyAfhAm6U6c11TFIYC7TLFDkEQwJmhjC1mXaWDVbw99PeY987swHtW-pPkSR21iScncN46bastX5TDN-g7RT3c0M-NXaNkUlfndPnI3GstBqQmRuNXvFFVvhFq4mcYrrQ3hxzlhCZ3yT5OkSysl2D8DFGtwVqO7jYf_my8fr16btoOrVrmFyWUdTuNyKPmUFZRIkuCvXlzkQcSf7K2OStJ3nFmuv_CuNyc2kiKZ4z6/https%3A%2F%2Fwww.oakville.ca%2Fenvironment%2Fflower-morrison-wedgewood-studies.html).

Posted materials include details on the evaluation of alternatives and preferred solutions. Comments or questions can be submitted via email, mail or phone call until January 20, 2021.

Should there be any questions please do not hesitate to contact the undersigned.

Best Regards,

**Kristina Parker, M.A.Sc., P.Eng.**  
**Water Resource Engineer**  
**Development Services**

Town of Oakville | 905-845-6601, ext.3889 | f: 905-338-4414 | [http://secure-web.cisco.com/1BxHKVtZQ0yVpuFQEDwfn4q9Zy1oncTwEdOdnempPb1iAULnXlvDD1eN1ox1PdTMybVjJnooYW41Tf79NFoDRdfw6plwTjdnqgh9dIQFUDSDGaPvl2Qe9Sq\\_N2Wdux\\_oFr8EKuM3MhNK-oWxdHnfnU-tvQY6yEPu5RmPNn7ur0hCVdfF8OIL-74iQKDqIPJ4he4joPgZJlkOYt5KkrLNulnmKO85WwwBoVA1DFVLVpbfv4HJRr0rJijzXushaJwyVhu69-P7OXq0yfC27Q5LCVfodq3Kd8z\\_qhyhcLPmZYNojZHd6ITfw2y-SiyX-4j8r/http%3A%2F%2Fwww.oakville.ca](http://secure-web.cisco.com/1BxHKVtZQ0yVpuFQEDwfn4q9Zy1oncTwEdOdnempPb1iAULnXlvDD1eN1ox1PdTMybVjJnooYW41Tf79NFoDRdfw6plwTjdnqgh9dIQFUDSDGaPvl2Qe9Sq_N2Wdux_oFr8EKuM3MhNK-oWxdHnfnU-tvQY6yEPu5RmPNn7ur0hCVdfF8OIL-74iQKDqIPJ4he4joPgZJlkOYt5KkrLNulnmKO85WwwBoVA1DFVLVpbfv4HJRr0rJijzXushaJwyVhu69-P7OXq0yfC27Q5LCVfodq3Kd8z_qhyhcLPmZYNojZHd6ITfw2y-SiyX-4j8r/http%3A%2F%2Fwww.oakville.ca)

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[http://secure-web.cisco.com/1ZH3QWpf9\\_4grZtfta53laqufuGYeCrijt9sECfA2BIT5bQYZjBAHJ5aVKYiGxQfCjPA3QUOUhHmICC2TbTGmJBvkVjgk0rTcRxyAqdga0SQJHDUErmhppzgWa4VV-xUwOL6UTk2Kjds-sGD2\\_Vx964w-phd4i7Aul11PPc2elWetL7v2mz2TOnGguwRxPgKI5lXC1pJ05rPYUHKfZvBFJrHgJwJUGavxrNvSUTBhkZkj1\\_-RZ6svfGGYNFZGW58ynfZY2G3Otds92rsa9XQ325eAQLWmArbHNDDB-rV0-sRWPAYEohgmiiUIPQkz8l/http%3A%2F%2Fwww.oakville.ca%2Fprivacy.html](http://secure-web.cisco.com/1ZH3QWpf9_4grZtfta53laqufuGYeCrijt9sECfA2BIT5bQYZjBAHJ5aVKYiGxQfCjPA3QUOUhHmICC2TbTGmJBvkVjgk0rTcRxyAqdga0SQJHDUErmhppzgWa4VV-xUwOL6UTk2Kjds-sGD2_Vx964w-phd4i7Aul11PPc2elWetL7v2mz2TOnGguwRxPgKI5lXC1pJ05rPYUHKfZvBFJrHgJwJUGavxrNvSUTBhkZkj1_-RZ6svfGGYNFZGW58ynfZY2G3Otds92rsa9XQ325eAQLWmArbHNDDB-rV0-sRWPAYEohgmiiUIPQkz8l/http%3A%2F%2Fwww.oakville.ca%2Fprivacy.html)



Chipps, Steven

---

From: Kristina Parker <kristina.parker@oakville.ca>  
Sent: Wednesday, December 16, 2020 9:41 AM  
To: Chipps, Steve  
Cc: Diana Friesen  
Subject: FW: Public Consultation Lower Morrison/Lower Wedgewood Creek Flood Mitigation Opportunities Study

**CAUTION:** External email. Please do not click on links/attachments unless you know the content is genuine and safe.

FYI, some discussion with HydroOne for this study for your files.  
Thanks,

---

From: Joan.Zhao@HydroOne.com [mailto:Joan.Zhao@HydroOne.com]  
Sent: December 16, 2020 8:19 AM  
To: Kristina Parker <kristina.parker@oakville.ca>  
Subject: RE: Public Consultation Lower Morrison/Lower Wedgewood Creek Flood Mitigation Opportunities Study

**SECURITY CAUTION:** This email originated from outside of The Town of Oakville. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Thanks for reply. Should Town require access to Hydro corridor lands in future, please contact our Real Estate.

**Joan Zhao** SR/WA

Sr. Real Estate Coordinator  
Facilities & Real Estate  
Hydro One Networks Inc.

C: (416) 573-7987 | F: (905) 946-6242

P.O. Box 4300 | Markham ON | L3R 5Z5

Courier: 185 Clegg Road | Markham ON | L6G 1B7

[joan.zhao@hydroone.com](mailto:joan.zhao@hydroone.com)

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---

From: Kristina Parker <[kristina.parker@oakville.ca](mailto:kristina.parker@oakville.ca)>  
Sent: Tuesday, December 15, 2020 5:46 PM  
To: ZHAO Joan <[Joan.Zhao@HydroOne.com](mailto:Joan.Zhao@HydroOne.com)>  
Subject: RE: Public Consultation Lower Morrison/Lower Wedgewood Creek Flood Mitigation Opportunities Study

**\*\*\* Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. \*\*\***

Good afternoon,

The work on west Morrison Creek was to address erosion issues along the creek system. The creek was realigned away from valley walls to reduce the risk to infrastructure and properties. This work was completed in October.

The flood mitigation study is for two creek systems in the southeast area of Oakville (completely different creek channels than the west Morrison Creek work). These systems have been identified as having moderate to high flood

risks along the creeks. The mitigation study evaluates alternatives to reduce the flood risk. No construction work is associated with this study- but the study will inform the town's capital planning.

Let me know if you have any questions.

Thanks,

---

From: [Joan.Zhao@HydroOne.com](mailto:Joan.Zhao@HydroOne.com) [<mailto:Joan.Zhao@HydroOne.com>]

Sent: Tuesday, December 15, 2020 5:37 PM

To: Kristina Parker <[kristina.parker@oakville.ca](mailto:kristina.parker@oakville.ca)>

Subject: FW: Public Consultation Lower Morrison/Lower Wedgewood Creek Flood Mitigation Opportunities Study

**SECURITY CAUTION: This email originated from outside of The Town of Oakville. Do not click links or open attachments unless you recognize the sender and know the content is safe.**

Hi Kristina,

What is scope of this upcoming PIC? Something new to what you presented in new year? Attached is our communication on June 22, 2020.

Thanks,

**Joan Zhao** SR/WA

Sr. Real Estate Coordinator

Facilities & Real Estate

Hydro One Networks Inc.

C: (416) 573-7987 | F: (905) 946-6242

P.O. Box 4300 | Markham ON | L3R 5Z5

Courier: 185 Clegg Road | Markham ON | L6G 1B7

[joan.zhao@hydroone.com](mailto:joan.zhao@hydroone.com)

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---

From: Kristina Parker <[kristina.parker@oakville.ca](mailto:kristina.parker@oakville.ca)>

Sent: Tuesday, December 15, 2020 10:43 AM

Cc: Diana Friesen <[diana.friesen@oakville.ca](mailto:diana.friesen@oakville.ca)>

Subject: Public Consultation Lower Morrison/Lower Wedgewood Creek Flood Mitigation Opportunities Study

**\*\*\* Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. \*\*\***

FYI

The Lower Morrison and Lower Wedgewood Creeks Flood Mitigation Opportunities Study is an on-going Municipal Class Environmental Assessment (Class EA) being managed by the Development Engineering Department. This study is a follow-up study to the 2008 Town-wide Flood Study. Please find attached a copy of the 'Notice of Public Consultation #2' that has been printed in the Oakville Beaver.

This is the second public consultation for the flood mitigation opportunities study. Town staff are seeking feedback on the preferred alternatives for both channel systems. Due to COVID 19 restriction, public consultation for this study will be carried out using a virtual format. As of December 17<sup>th</sup>, materials will be available on the town's website at the following link: <https://www.oakville.ca/environment/lower-morrison-wedgewood-studies.html>.

Posted materials include details on the evaluation of alternatives and preferred solutions. Comments or questions can be submitted via email, mail or phone call until January 20, 2021.

Should there be any questions please do not hesitate to contact the undersigned.

Best Regards,

**Kristina Parker, M.A.Sc., P.Eng.**  
**Water Resource Engineer**  
**Development Services**

Town of Oakville | 905-845-6601, ext.3889 | f: 905-338-4414 | [www.oakville.ca](http://www.oakville.ca)

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From: France Fournier [<mailto:francefournier@oakvillechamber.com>]  
Sent: Thursday, December 17, 2020 10:21 AM  
To: Kristina Parker <[kristina.parker@oakville.ca](mailto:kristina.parker@oakville.ca)>  
Subject: Notice of Public Consultation

SECURITY CAUTION: This email originated from outside of The Town of Oakville. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Kristina,

We received Notice of Consultation for the Lower Morrison and Wedgewood Creeks addressed to Mr. John Sawyer at the Oakville Chamber of Commerce. John has since retired, please remove him from your list.

Can you please ensure that Ms Faye Lyons and Mr. Drew Redden of the Oakville Chamber remain on the list.

Thank you for your assistance.

France



FRANCE FOURNIER  
Executive Vice President  
Email: [francefournier@oakvillechamber.com](mailto:francefournier@oakvillechamber.com)  
[www.oakvillechamber.com](http://www.oakvillechamber.com)





December 18,2020

**VIA EMAIL**

Kristina Parker, P. Eng.  
Town of Oakville  
kristina.parker@oakville.ca

Dear Kristina,

**RE: MCFN Response to Lower Morrison and Wedgewood Creeks Flood Mitigation Opportunities Study**

Confirmation of Receipt

I am writing on behalf of the Mississaugas of the Credit First Nation ("MCFN") to acknowledge that we have received your above named communication, dated December 18,2020.

Outline of MCFN Rights and Territory

In 1806 , the Crown and MCFN entered into Head of the Lake Treaty, No. 14 (1806) regarding the lands in which your project is situated.

The Mississaugas of the Credit First Nation are the descendants of the "River Credit" Mississaugas. The undisputed Territory of the MCFN is defined as a Territory commencing at Long Point on Lake Erie thence eastward along the shore of the Lake to the Niagara River. Then down the River to Lake Ontario, northward along the shore of the Lake to the River Rouge east of Toronto then up that river to the dividing ridges to the head waters of the River Thames then southward to Long Point, the place of the beginning. Our Territory encompasses the lands and waters that were used and occupied by our Ancestors. Territories are usually large tracts of land that reflect the breadth required for seasonal activities and habitation and changes in those movement patterns through time. Through Treaties with the Crown, MCFN agreed to share our Territory with newcomers. However, not all of MCFN's Territory has been dealt with through a Treaty.



With the exception of a small part of the Credit River, our Treaties with the Crown did not deal with the water parts of our Territory. We have not agreed to share any part of our waters with settlers. We formally gave notice to the Crown of this claim in 2016. We note that any lands that have been artificially created on our waters have also not been dealt with by any Treaty.

Like our ancestors before us, we continue to use the lands, waters, and watershed ecosystems within our Territory for a variety of livelihood, harvesting, ceremonial and spiritual purposes. We have always exercised governance functions and stewardship in order to protect our Territory, conserve the fish and wildlife that depend upon it, and ensure its ongoing ability to sustain our people. We assert that our Aboriginal and treaty rights fundamentally entitle us to continue to act as stewards of our Territory, to be involved in decisions that affect it, and to participate in the ongoing, responsible management of the resources it provides.

#### Duty to Consult and Accommodate

As you will know, the Crown has a constitutional duty to consult and accommodate MCFN in respect of any decisions that might affect its asserted or proven Aboriginal and/or Treaty Rights. We expect that, consistent with the Crown's constitutional duty, no approval should be issued to this project until MCFN has been sufficiently consulted and accommodated. Nothing in this letter shall be construed as to affect our Aboriginal and/or Treaty Rights and hence shall not limit any consultation and accommodation owed to MCFN by the Crown or any proponent, as recognized by section 35 of the Constitution Act, 1982.

MCFN has the right to free and informed consent prior to the approval of any project or any planning decision adversely impacting its Territory and to benefit economically from resource development within its Territory.

MCFN has formed the Department of Consultation and Accommodation ("DOCA") to represent its interests in consultation and accommodation matters. It is DOCA's mandate to ensure that we are directly involved in all planning and development that impacts the integrity of our Territory. In this regard, DOCA will assess and help alleviate impacts on our rights, land claims, and ways of life by building relationships with governments and private sector proponents. We share a mutual interest in ensuring that projects in the Territory are planned, reviewed, and developed in a manner which ensures healthy communities, ecological protection, and sustainable development for present and future generations in the Territory.





MCFN is not opposed to development, but MCFN must to be involved in development decision making. MCFN has a deep connection to its Territory and we have a stewardship responsibility for our land. By engaging with us, a project proponent can learn our perspective on how to care for this land and we can work together to shape the project to mitigate damaging effects to our land and perhaps even work to improve our environment. MCFN is the only party who shall determine whether there are impacts to our Aboriginal and treaty rights.

One of the ways we require proponents to engage with us is in providing transparency during the environmental survey and archaeological assessment process. The best way to accomplish this is by having Field Liaison Representatives ("FLRs") on location while fieldwork is occurring, who can ensure that the Nation's special interests and concerns are respected and considered during fieldwork. The cultural and natural resources in question are part of MCFN's territory and heritage and it is our responsibility to ensure their protection, on behalf of the Nation. MCFN's stewardship of its territory extends through the life of any development project and beyond.

#### DOCA Project Registration

DOCA has completed an initial intake review of the project communication you have provided. This file has been assigned DOCA Project 2020-0773 ; please use this number in all future communications.

We respectfully ask you to immediately notify us if there are any changes to the project.

#### Referral to DOCA Units

Following DOCA's initial intake review of the project communication, the file has been referred to the following DOCA Units for additional follow-up.

	<b>Unit Identification</b>	<b>Primary Contact</b>	<b>Email Address</b>
✓	Archaeology	Megan DeVries	<a href="mailto:megan.devries@mncfn.ca">megan.devries@mncfn.ca</a>
✓	Cultural/Historical	Darin Wybenga	<a href="mailto:darin.wybenga@mncfn.ca">darin.wybenga@mncfn.ca</a>
✓	Environment	Fawn Sault (Temp)	<a href="mailto:fawn.sault@mncfn.ca">fawn.sault@mncfn.ca</a>
✓	FLR Participation	Megan DeVries	<a href="mailto:megan.devries@mncfn.ca">megan.devries@mncfn.ca</a>
	Governance	Mark LaForme	<a href="mailto:mark.laforme@mncfn.ca">mark.laforme@mncfn.ca</a>
	Economic Development	Director	<a href="mailto:SED.Director@mncfn.ca">SED.Director@mncfn.ca</a>

If you have not been contacted by the indicated DOCA Units within fourteen days following receipt of this letter, please let me know.



### Request for Missing Information

In order to proceed with our follow-up review, we ask you to ensure that all available information relating to the project has been transmitted to us. We have identified the following general information as missing from your initial project communication:

<b>Outstanding Project Information</b>	
✓	Name of person or body undertaking the action or decision.
✓	Contact information for the person or body undertaking the action or decision.
✓	List of documents pertaining to the proposed action/decision that are available for MCFN to review.
✓	Description of what other information is expected to become available before the proposed action/decision is undertaken.
✓	Deadlines or filing dates pertaining to the action/decision.
✓	The Crown or Municipal review/ approval that is required for the project.
✓	How the proposed action or decision may affect and/or benefit MCFN, its rights and territory.

### Closing

We ask that you respond with the above requested information within fourteen days following receipt of this letter. We thank you in advance for your attention to our requirements and we look forward to working with you further to shape the planning for development in our Territory.

Sincerely,



Fawn Sault  
Consultation Coordinator  
[fawn.sault@mncfn.ca](mailto:fawn.sault@mncfn.ca)



From: Kristina Parker  
Sent: January 18, 2021 5:23 PM  
To: [REDACTED] [steve.chipps@woodpic.com](mailto:steve.chipps@woodpic.com)  
Cc: Diana Friesen <[diana.friesen@oakville.ca](mailto:diana.friesen@oakville.ca)>  
Subject: RE: Flood Mitigation Opportunities Study

Good afternoon,

Thank you for your email. This particular area does have a known higher flood risk. The current floodline mapping can be obtained from Conservation Halton as they regulate these creek systems. The current floodline mapping does show that properties in this area are regulated. This means that you will need a permit from Conservation Halton to make any changes to your property. The creek in this area is also privately owned, so likely the reinforcements that you noted (armour stone etc) were put in by the homeowners over time.

This study focuses on works that be constructed on town-owned lands to reduce the overall flood risk. Berming has been identified on private property in some areas.

Please do not hesitate to contact the undersigned should you have further questions.

Best regards,  
Kristina

From: [REDACTED]  
Sent: January 18, 2021 11:09 AM  
To: Kristina Parker <[kristina.parker@oakville.ca](mailto:kristina.parker@oakville.ca)>; [steve.chipps@woodpic.com](mailto:steve.chipps@woodpic.com)  
Subject: Flood Mitigation Opportunities Study

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Hi Kristina, Steve,

We are the owners of [REDACTED] Trelawn Ave, Oakville. The backyard of our house shares the creek with our neighbours' houses on Alscot Cre.

We have lived here for more than 11 years and have witnessed multiple times of the flood from the creek, which threatened the houses in this neighborhood over and over again. We have seen that there seems to be some past project aimed to reinforce the banks of the creek with rocks and stones. But over the years these reinforcements are gradually failing to keep the water flood away from the houses. In the past ten years as we have seen, the width of this portion of the creek has increased by more than 2 times. As such, though we know nothing about the history, we would recommend that you may dispatch your expert teams to the site in your effort to explore the best mitigation measures. We will be much appreciated.

Thank you very much !

[REDACTED]



From: [REDACTED]  
Sent: January 19, 2021 3:59 PM  
To: Kristina Parker <[kristina.parker@oakville.ca](mailto:kristina.parker@oakville.ca)>  
Cc: >  
Subject: Flood Mitigation Opportunities, Morrison and Wedgewood Creeks.

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Hi Kristina,

Further to our brief discussion, I have reviewed the documentation available on Town website.

Couple of questions:-

1. Could you , or your Consultant explain what is meant by the phrase " build climate change resiliency"?
2. Given that the Amber Crescent culvert/ bridge is now complete , should it be removed or perhaps noted as "completed"?
3. It is important to set out the general benefits that accrue from implementation of the improvement measures identified, as has been undertaken in section 10 of the report.
4. Has the issue of storm design return period been resolved?. As we know the costs for a "1 in 10 year storm" solution are less expensive , than "1 in 100 year storm" solution .

In this context of points 3 and 4 above may I suggest to you that the estimated costs are needed to establish the other side of the equation i.e the estimated costs of the benefit. (This is particularly sensitive in this case as the expenditure is likely to come from the public purse, but a significant portion of the benefits will accrue to private property owners situated along the watercourses.)

In any event the estimated costs are integral to recommended options and I would suggest to you that the recommendations would be more meaningful with a cost /benefit assessment.  
Further at some point our (taxpaying) residents will want to know how much will it all cost ? and over what period of time?

Thank you for the opportunity to submit questions . Look forward to your response.

[REDACTED]  
Director , Chartwell Maple Grove RA

-----Original Message-----

From: [REDACTED]  
Sent: January 18, 2021 5:19 PM  
To: Kristina Parker <[kristina.parker@oakville.ca](mailto:kristina.parker@oakville.ca)>  
Subject: Re: Lower Morrison Creek Flood Mitigation Study

Yes. Thank you for responding.

Anything the town can do on town owned lands to reduce peak storm flow for the privately owned portions would be fantastic.

Regards.

[REDACTED]

Sent from my iPhone

> On Jan 18, 2021, at 5:04 PM, Kristina Parker <[kristina.parker@oakville.ca](mailto:kristina.parker@oakville.ca)> wrote:  
>  
> Good morning,  
> Thank you for your email. We appreciate your comments.  
>  
> Some areas of the creek channel are owned by the town, however a lower portion of the Lower Morrison and Lower Wedgewood Creek channels are privately owned. Erosion protection works would be the responsibility of the landowner. Most of the proposed works to reduce flood risk would be on town-owned land, with the exception of the proposed berms.  
>  
> If you would like further information as to any proposed works near to your property, please advise of the particular address and we can provide.  
>  
> Best regards,  
> Kristina  
>  
>  
> Kristina Parker, M.A.Sc., P.Eng.  
> Water Resource Engineer  
> Development Services  
> Town of Oakville | 905-845-6601 ext.3889 | f: 905-338-4414 | [www.oakville.ca](http://www.oakville.ca)  
>  
> Please consider the environment before printing this email.  
>  
> -----Original Message-----  
> From: [REDACTED]  
> Sent: January 13, 2021 8:12 PM  
> To: Kristina Parker <[kristina.parker@oakville.ca](mailto:kristina.parker@oakville.ca)>  
> Cc: [steve.chipps@woodplc.com](mailto:steve.chipps@woodplc.com)  
> Subject: Lower Morrison Creek Flood Mitigation Study

>

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>

>

> We live on a property where Lower Morrison Creek runs through it on two sides, therefore the Creek portion of the property involves a corner. The property floods often with regular rain events because of this bend in the Creek.

>

> We have noticed that along other creek sections in our area and across Oakville, armour stone has been used to construct a hardscape wall between the water course and higher portions of the affected properties. This seems to keep the bulk of the overflow from regular rain events contained within the creek itself. This as an option would greatly remove the threat from properties from regular rain events.

>

> In addition, we are in support of whatever option can control the flow of water after intense storm events, such as the storm water ponds mentioned. This has been an issue for a long period of time and with the continued increased intensity of storm events we are hopeful that the Town will act soon.

>

> Thank you.

>

> 



From: Kristina Parker <kristina.parker@oakville.ca>  
Sent: Thursday, January 14, 2021 5:14 PM  
To: [REDACTED]  
Cc: Chipps, Steve <steve.chipps@woodplc.com>; Diana Friesen <diana.friesen@oakville.ca>  
Subject: RE: Re fool protection Morrison Creek

Good afternoon,

Thank you for your email. Your comments have been provided to the town's consultant and will be reviewed as part of the study.

The Town of Oakville has been fortunate to not have experienced an extreme rainfall event in recent history. Many of our neighbouring municipalities have experienced large storms resulting in significant flooding. There was a significant rainfall event in May 2005 that impacted several areas of town, including some properties in the Lower Morrison and Lower Wedgewood Creek. This study considers the risk of flooding from a variety of rainfall events from the more frequent to the much less frequent events. We appreciate your feedback.

Best regards,  
Kristina

**Kristina Parker, M.A.Sc., P.Eng.**  
**Water Resource Engineer**  
**Development Services**

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From [REDACTED]  
Sent: December 21, 2020 11:32 AM  
To: Kristina Parker <[kristina.parker@oakville.ca](mailto:kristina.parker@oakville.ca)>  
Subject: Re fool protection Morrison Creek

I live on Dunwoody Road backing on Morrison Creek elevated lot looking down on Creek  
I have lived here since 1992 and have never witnessed any appreciable  
flooding of Morrison creek, high water yes but no flooding

This email sent in relation to mailer I received last week

From: Kristina Parker <kristina.parker@oakville.ca>

Sent: Tuesday, January 26, 2021 4:32 PM

To: [REDACTED]

Cc: Philip Kelly <philip.kelly@oakville.ca>; Chipps, Steve <steve.chipps@woodplc.com>; Diana Friesen <diana.friesen@oakville.ca>

Subject: FW: Question and Comments on Flood Mitigation Opportunities Study

**CAUTION:** External email. Please do not click on links/attachments unless you know the content is genuine and safe.

Good afternoon,

Thanks again for your comments. I have confirmed with the town's consultant that the additional flow from a spill from the Morrison-Wedgewood Diversion Channel was not included within the modeling carried out for this study. At the time that work was carried out on the modelling for the Lower Morrison/Wedgewood Flood study, the spill from the diversion channel was not yet understood or quantified.

The diversion channel was designed and constructed in the early 1960's to alleviate flooding downstream in Lower Morrison and Lower Wedgewood Creek. It was designed using the best available information and science at the time. Fortunately the channel provides a great deal of flood risk reduction for the Lower Morrison and Lower Wedgewood Creek channels.

As noted in my earlier email, an implementation plan will be developed that considers the recommendations of all five flood mitigation studies across town and considers flood risk, costs and benefits of proposed works. As staff move forward with the design of any recommended works, the best information available will be used to design infrastructure. Town staff will continue to work with Conservation Halton to better understand the risks associated with the diversion channel.

With respect to the proposed works recommended within the Lower Morrison/Wedgewood Creek Flood Mitigation Opportunities study, all culverts have been assessed to reduce flood risk as much as possible considering existing constraints including land ownership, existing development and topography of the area.

Please do not hesitate to contact the undersigned should you have further comments.

Best regards,

Kristina

From: [REDACTED]

Sent: January 15, 2021 3:01 PM

To: Kristina Parker <kristina.parker@oakville.ca>

Cc: [steve.chipps@woodplc.com](mailto:steve.chipps@woodplc.com); Diana Friesen <diana.friesen@oakville.ca>; Philip Kelly <philip.kelly@oakville.ca>

Subject: Re: Question and Comments on Flood Mitigation Opportunities Study

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Good Afternoon,

Thanks for your reply; we were not expecting such a fulsome response, just wanted to ensure you had our comments, but we appreciate your time in responding to the issues raised.

We look forward to more in-depth responses next week as you indicated.

I hope you can appreciate that these studies have serious impact on those living and working in these neighbourhoods and we want to ensure that our voices are heard and contemplated. We believe it is in the interest of each party and stakeholder to have this discourse and we sincerely appreciate this town giving the public an opportunity to participate.

Regards,

[REDACTED]

Sent from my iPhone

On Jan 15, 2021, at 1:45 PM, Kristina Parker <[kristina.parker@oakville.ca](mailto:kristina.parker@oakville.ca)> wrote:

Good afternoon,

We have received your emails. We are compiling all comments received as the public consultation period wraps up. We will be responding to all comments over the next week or so. All comments will be included within the EA document, however names and addresses will be removed.

This flood mitigation study for Lower Morrison/Lower Wedgewood creeks commenced years prior to the Morrison/Wedgewood Diversion Channel work that was done last year. As such, I believe the updated flood models that were created as the basis for this study did not include the spill from the diversion channel as it was not yet identified, however I will discuss with the town's consultant and reply to all your questions below. I am the town's representative for Conservation Halton's study so I'm aware that further work is on-going to learn more about the spill from the channel. The on-going work also considers mitigation work to eliminate the spill.

The town's study has considered mitigation works to reduce flood risk for a variety of events including more frequent rainfall events up to extreme rainfall events. The preferred alternative works will be evaluated along with mitigation works identified within five separate flood risk studies across town. None of these mitigation works are currently within the town's capital forecast. The works will be prioritized based on the flood risk, as well as the cost and benefit of works. As projects move into detailed design, updated conditions including flowrates will be used to confirm sizing for proposed works.

I will attempt to address your questions fully next week.

Best regards,  
Kristina

**Kristina Parker, M.A.Sc., P.Eng.**



**Water Resource Engineer  
Development Services**

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From: [REDACTED]  
Sent: January 15, 2021 1:23 PM  
To: [steve.chipps@woodplc.com](mailto:steve.chipps@woodplc.com); Kristina Parker <[kristina.parker@oakville.ca](mailto:kristina.parker@oakville.ca)>  
Subject: RE: Question and Comments on Flood Mitigation Opportunities Study

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Hi Kristina and Steve,

Could you please confirm if you have received our below email?

Conservation Halton this month has made the copy of study available electronically by request. We have requested and do have access to an electronic version of the study if you need a copy.

If you have any questions or would like to discuss the below you can contact us at [REDACTED]

Sincerely,

[REDACTED]

From:  
Sent: January 12, 2021 3:27 PM  
To: [steve.chipps@woodplc.com](mailto:steve.chipps@woodplc.com)  
Cc: [kristina.parker@oakville.ca](mailto:kristina.parker@oakville.ca)  
Subject: Fwd: Question and Comments on Flood Mitigation Opportunities Study

Hi Kristina and Steve,

Further to our voicemail message of today, we decided to reach out to you via email with some of our preliminary feedback and questions for the Flood Mitigation Opportunities Study - Lower Morrison and Lower Wedgewood Creeks as requested in your PIC.

We have a few points of concern to raise:

On March 31 2020 "Morrison-Wedgewood Diversion Channel Flood Risk Mapping Study and Spill Quantification" was completed by Morrison Hershfield for Conservation Halton. This study results in significant "spills" from the Morrison Wedgewood Diversion Channel for the 100 year storm into the drainage of both the Lower Morrison and Lower Wedgewood Creeks. We ask the following questions:

1. If you are planning flood mitigation of the Lower Morrison and Lower Wedgewood Creeks will you be using this latest data to determine the level of your flood mitigation?
2. I believe as part of your study Wood PLC has determined its own data for the flow of water into the Lower Morrison and Lower Wedgewood Creeks, does this data match with the data that was determined by Morrison Hershfield?
3. If you choose not to use the latest data presented by Conservation Halton and Morrison Hershfield why is it not valid for the mitigation strategy of Lower Morrison Creeks and Lower Wedgewood?
4. How does Conservation Halton and the Town of Oakville deal with potential conflicts that may arise due to assumptions made in studies dealing with the same watercourse?

As homeowners in the Lower Morrison Drainage area we are disappointed that Conservation Halton has determined that the Morrison Wedgewood Diversion Channel does not meet the threshold to prevent a flood. It is interesting that your somewhat concurrent study, in the overlapping study area, is not taking those flood waters into consideration when determining mitigation. By not maintaining this critical piece of infrastructure and instead letting it overflow into the drainage of both the Lower Morrison and Lower Wedgewood creeks, numerous homeowners are now classified as in a floodplain and we want to understand the impact of this on the mitigation study.

Should any of the above noted questions or comments be included in the study/PIC comments section we expressly ask that you confirm that you will remove our names and contact information so as to protect our privacy.

Sincerely,

[REDACTED]

# Meeting Notes

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Date: January 29, 2021

Meeting at: Zoom

---

Ref: Town of Oakville, Lower Morrison and Wedgewood Creek Systems Flood Mitigation Opportunities Study

Subject/purpose:

An initial meeting between Mississaugas of the Credit First Nation (MCFN) and the Town of Oakville (Town) to discuss the Lower Morrison and Wedgewood Studies.

Attendees:

Mississaugas of the Credit First Nation:  
Mark LaForme  
Fawn Sault  
Megan DeVries

Town of Oakville:  
Kristina Parker  
Diana Friesen

Wood:  
Steve Chipps  
Mary Kelly

## 1. INTRODUCTIONS

Town, Wood and MCFN provided brief introductions.

## 2. PROJECT DETAILS

Kristina provided a brief overview of the Project.

A town-wide flood study of all small waterways (excluding 16 Mile and Bronte Creeks) was completed in 2008. The results of the study identified five areas that were prone to flood risk and damage. Of these areas, the Lower Morrison and Wedgewood Creek systems were identified as the highest priority.

Modeling has been conducted to consider both the 100-year storm events (which has a 1% chance of occurring) and more frequent storm events (such as 10-year storm event that has a 10% chance of occurring) to support development of alternatives to address these risks. From recommendations some would be small enough to proceed to detailed design; however, other areas and their recommendations require more detailed studies (and an environmental assessment).

Steve shared presentation materials from the first Public Information Centre (PIC), which was held on June 18, 2019. Steve identified that all materials are available on the Town's website at:

<https://www.oakville.ca/environment/lower-morrison-wedgewood-studies.html>

The current study, which is being completed as a Municipal Class Environmental Assessment (Phases 1 and 2) is assessing the existing flood conditions in these two creek areas and conducting an assessment of alternatives for flood mitigation measures (three preliminary alternatives have been identified).





The area south of the QEW corridor is fully developed and the development is from a time which allowed for encroachment into the creek floodplains. There has been a flow diversion channel in place since 1960 north of the QEW to reduce flooding (it is managed by Conservation Halton).

Fawn inquired if the study considers planned future growth; Steve identified that it does – that the study considers existing development and planned such as the planned redevelopment of Midtown (which is adjacent to the QEW and will result in more paved surfaces). Steve also noted that the study also considers climate change: more frequent and increased intensity of events.

To support this, detailed modeling has been developed to focus on fluvial/riverine flooding (not urban, foundation drain or sanitary sewer flooding). Mark inquired why the Town was looking at these separately; Steve identified that this Project came out of the Stormwater Master Plan that encompasses all the waterways within the Town. A separate project looked at urban and sanitary flooding.

Fawn asked about waterways on the slide; the Town refers to these as remnant channels which convey overland flows.

Steve identified the number of locations at risk for a 100-year storm event.

Mark identified that if the Town needs support in connecting with the railroad landowners (CN, Metrolinx) they may be able to support based on the relationships they have with those landowners. The Town identified that localized flood protection needs the participation of all private property owners, so they appreciate the offer.

Steve stepped through the preliminary alternatives identified, which included:

- increase conveyance capacity (road crossing upgrades, floodplain / channel improvements, roadway profile modifications),
- protect at-risk structures (flood proofing buildings, reduce risk of culvert blockages, flow diversions), and
- flood control via stormwater management quantity controls (flood storage ponds and tanks, Low Impact Development Best Management Practices),
  - Steve identified that the planned redevelopment of Midtown has been specifically reviewed to consider stormwater management needs, in order that the redevelopment does not increase flood risk downstream.
- non-structural solutions (public education, emergency preparedness, policy amendments).

Steve shared presentation materials from the second PIC, which was held in December 2020. During the discussion of use of stormwater storage tanks, Fawn inquired if aquatic life gets into / out of the structure. Steve identified that this is a concern of the alternative, and therefore, further assessment (aquatic assessment) would be required, and that the intake would have to be designed not to allow entry of area fish species.

Steve identified that the Town is seeking feedback by February 20, 2021 to incorporate and finalize. As part of the next steps, they will be identifying mitigation measures, consulting with agencies and other public stakeholders. The report, Environmental Study Report, will be made available for review.

A copy of the PIC slides is to be provided to the MCFN.



From [REDACTED]  
Sent: Thursday, February 4, 2021 12:01 PM  
To: 'Curtis Marcoux' <curtis.marcoux@oakville.ca>; 'Kristina Parker' <kristina.parker@oakville.ca>; 'Diana Friesen' <diana.friesen@oakville.ca>; Chipps, Steve <steve.chipps@woodplc.com>  
Cc: 'Candace Karandiuk' <candace.karandiuk@oakville.ca>  
Subject: RE: Lower Morrison and Wedgewood Creeks Flood Mitigation Study - Feedback [REDACTED]  
[REDACTED]

**CAUTION:** External email. Please do not click on links/attachments unless you know the content is genuine and safe.

Curtis

Thanks for the reply and the aerial photo. As can be seen by the photo clearing the town owned land does not obviate a blockage from occurring on the other properties o that risk remains.

For your information we had an arborist come in a two years ago to cut down and to cut up the dead trees on our property. At the same time we planted 8 new indigenous trees susceptible to flood plan growth, and last year was the first summer and all seems to have survived and thrived.

Unfortunately in other areas trees have fallen across the river which could facilitate blockages. It would great if we had a campaign of cutting down all potential hazards and start an initiative to replant the space with indigenous species. We enjoy the coyotes, deer, rabbits, and bird life the property offers and the woodland is a huge plus for us.

Look forward to hear about the other initiatives being carried out to prevent flooding of properties and again offer to create a feature (berm?) along our water front to help in this initiative.

Best regards  
Ian

From: Curtis Marcoux <[curtis.marcoux@oakville.ca](mailto:curtis.marcoux@oakville.ca)>  
Sent: January 27, 2021 11:01 AM  
To: Kristina Parker <[kristina.parker@oakville.ca](mailto:kristina.parker@oakville.ca)>; [REDACTED]; Diana Friesen <[diana.friesen@oakville.ca](mailto:diana.friesen@oakville.ca)>; [steve.chipps@woodplc.com](mailto:steve.chipps@woodplc.com)  
Cc: Candace Karandiuk <[candace.karandiuk@oakville.ca](mailto:candace.karandiuk@oakville.ca)>  
Subject: RE: Lower Morrison and Wedgewood Creeks Flood Mitigation Study - Feedback [REDACTED]  
[REDACTED]

Good Morning,

Removal of dead ash was completed in the fall of 2016 within the Town owned parcel along this creek. It is shown in a green hatched area below, with other parcels delineated in white. Most debris was removed in spring of 2017 from this area to minimize any watercourse blockages that could occur.

At this time, there is no further regeneration activities planned at the Town owned site – but we can schedule the site for reassessment for in fill planting for our regeneration program.

As Kristina has noted, the portion behind [REDACTED] and the adjacent lot are not owned by the Town, and subsequently not under our woodland and silvicultural management.



**Curtis Marcoux, R.P.F.**  
**Supervisor- Invasive Species**  
**Parks & Open Space**

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From: Kristina Parker

Sent: January 25, 2021 9:46 AM

To: [REDACTED]

Cc: [steve.chipps@woodplc.com](mailto:steve.chipps@woodplc.com); Diana Friesen <[diana.friesen@oakville.ca](mailto:diana.friesen@oakville.ca)>; Candace Karandiuk <[candace.karandiuk@oakville.ca](mailto:candace.karandiuk@oakville.ca)>; Curtis Marcoux <[curtis.marcoux@oakville.ca](mailto:curtis.marcoux@oakville.ca)>

Subject: RE: Lower Morrison and Wedgewood Creeks Flood Mitigation Study - Feedback [REDACTED]

Good afternoon,

Thank you for your email, we appreciate your feedback.

With respect to the proposed berming on private property, staff will consider your recommendation to flag properties that have been identified as benefiting from such flood berming through the various flood mitigation studies so that the work can be considered through the permit process. Grading work associated with berming or any changes on regulated properties is critical as changing the grading on one property may result in increasing the flood risk on another property. This reasoning may have been associated with the decisions made by Conservation Halton several years ago regarding proposed changes to your property.

With respect to the emerald ash borer removal and the regeneration programs, I have copied Candace Karandiuk and Curtis Marcoux from the town's Forestry Department. I believe the town has already carried out removal programs in this area, but I'll ask that they confirm and advise if any regeneration is planned near to the subject property [REDACTED]. A good portion of the creek channel is privately owned, although there is some parkland that would be targeted for replanting. I note the creek channel that bisects your property is shown as privately owned within the town's records.

Please do not hesitate to contact the undersigned should you have further comments.

Best regards,  
Kristina

**Kristina Parker, M.A.Sc., P.Eng.**  
**Water Resource Engineer**  
**Development Services**

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From: >

Sent: December 17, 2020 3:50 PM

To: [steve.chipps@woodplc.com](mailto:steve.chipps@woodplc.com); Kristina Parker <[kristina.parker@oakville.ca](mailto:kristina.parker@oakville.ca)>

Subject: Lower Morrison and Wedgewood Creeks Flood Mitigation Study - [REDACTED]

**SECURITY CAUTION: This email originated from outside of The Town of Oakville. Do not click links or open attachments unless you recognize the sender and know the content is safe.**

Firstly I want to commend you on doing this work. As an engineer and long history in projects, I support action and hopefully we can see some of the measures recommended in the study implemented soon.

Several years ago we did an extension to our property and the city was adamant we not change the profile of our yard facing the river. If the council could have the insights contained in the study, then maybe we could have done a better job of flood profiling the yard to include a "berm like" structure as



recommended in the report. I would suggest, as Oakville approves all these ongoing knocking down of the bungalows and building of the larger houses that any work on the flood plain be incorporated into the planning permission, saving tax payers funds.

The potential flood plain impact area for the 1 in 100 year runs in front of our property and our title goes across the river to the northern bank. Fortunately the flood plain on the north side of the river would offer relief for increased water flow. For several years now the Emerald Ash borer beetle has ravaged several of the trees along this flood plain and I believe these could become problematic in a storm event creating barricades and damming the water flow in an inappropriate way. Several of the trees remain standing yet every year storm events have brought them down. So it would be good to consider stripping these old trees out from within the vegetation. We would support and fund replanting of indigenous trees, as enjoy the tree cover in the summer and the wildlife it offers. Maybe it could offer an opportunity to remove the non endemic species and replace over time with indigenous species?

Regards



From: [REDACTED]  
Sent: Sunday, March 7, 2021 8:02 PM  
To: 'Kristina Parker' <kristina.parker@oakville.ca>  
Cc: 'Diana Friesen' <diana.friesen@oakville.ca>; Chipps, Steve <steve.chipps@woodplc.com>  
Subject: RE: Comments Re: Municipal Class Environmental Assessment, Flood Mitigation Study for the Lower Morrison and Lower Wedgewood Creeks

Hi Kristina,

We would appreciate a visit with you to discuss the floodplain issues that we outlined below. If you could please check with Conservation Halton if the proposed works would remove our home from being in the regulated area, recognizing that a 7.5m setback is required, we would be grateful for this information. A section of the 100-year flood mapping is copied below with [REDACTED].

We are available anytime between 3-4 p.m. over the next couple of weeks. If you would prefer an alternate time please let us know and we will try to accommodate you.

I'm not too sure how to interpret your comments about the Midtown Core since I was under the impression that this study was a companion study to be considered with the previous Midtown Core EA. Maybe we could discuss this when we meet and if our comments need to be forwarded to the Midtown Study team.

We will contact the Roads and Works for a separate site visit.

Regards,  
[REDACTED]



From: Kristina Parker <[kristina.parker@oakville.ca](mailto:kristina.parker@oakville.ca)>

Sent: 24-Jan-21 4:58 PM

To: [REDACTED]

Cc: Diana Friesen <[diana.friesen@oakville.ca](mailto:diana.friesen@oakville.ca)>; [steve.chipps@woodplc.com](mailto:steve.chipps@woodplc.com)

Subject: RE: Comments Re: Municipal Class Environmental Assessment, Flood Mitigation Study for the Lower Morrison and Lower Wedgewood Creeks

Good afternoon,

Thank you for your comments. There is a lot of information provided within your comments, which is appreciated.

Many of your concerns are related to infill development on Chartwell, including some local drainage issues. These issues were presented in your comments related to the Stormwater Master Plan. My apologies, I had intended on attending your site in the Spring last year, but with COVID, I had postponed

the site visit. Can we set up a site visit (with masks and distancing of course) to take a look at these issues? I could invite staff from Roads and Works. Have they been to your property in the past regarding these drainage concerns?

With respect to the proposed changes to the culvert on Chartwell Road south of Linbrook Road, I do believe while there is a reduction in flood risk that would result, there would remain risk and the property would remain to be regulated by Conservation Halton. I will double check this information.

The work related to Midtown core was a more in-depth consideration of stormwater management requirements for redevelopment within the area beyond the preliminary targets that were developed through the Midtown Core Environmental Assessment (EA). This study found that the controls proposed in the EA were not overly conservative. This information will inform the current update to the Midtown Core EA. I'd be happy to pass the comments related to Midtown onto the EA study team for their consideration?

Please let me know if you're amenable to a site visit in the next couple weeks and provide some dates of availability.

Best regards,

Kristina

**Kristina Parker, M.A.Sc., P.Eng.**  
**Water Resource Engineer**  
**Development Services**

Town of Oakville | 905-845-6601, ext.3889 | f: 905-338-4414 | [www.oakville.ca](http://www.oakville.ca)

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<http://www.oakville.ca/privacy.html>

From: [REDACTED]

Sent: January 19, 2021 2:05 PM

To: Kristina Parker <[kristina.parker@oakville.ca](mailto:kristina.parker@oakville.ca)>; [steve.chipps@woodplc.com](mailto:steve.chipps@woodplc.com)

Subject: Comments Re: Municipal Class Environmental Assessment, Flood Mitigation Study for the Lower Morrison and Lower Wedgewood Creeks

Ms. Parker / Mr. Chipps,

Thank you for the opportunity to comment on the Municipal Class Environmental Assessment, Flood Mitigation Study for the Lower Morrison and Lower Wedgewood Creeks. We commend staff and the consultant on their diligent and thorough work, particularly during these challenging times with the COVID -19 epidemic making meetings particularly challenging.



We live at [REDACTED] and have expressed our concerns about a development on the neighbouring property. It may appear not to be relevant to your study but we feel the cumulative impact of infill development in our area should be recognized and considered to assess its bearing on adjacent properties as part of the flood mitigation study.

Flood frequency return rates and adversity have increased substantially evident by the overland flow that is currently scouring and eroding the right-of-way on the east side of Chartwell Road at a number of locations in front of our home before it enters the creek over the sidewalk or our sanitary maintenance hole.

We appreciate that lowering the height of the culvert on Chartwell Road south of Linbrook Road from 1.6m to 1.5m, as proposed may mitigate some of the flooding if the road is regraded to keep overland flow on the roadway. Widening the culvert will also increase its capacity and reduce the chance of it being overtopped by stormwater during a major storm event. This appears to be effective in removing our home from the floodplain and we are grateful for your attention to this.

We understand that this study is in part a precursor to develop the Midtown core and would like to add a few comments from what we have envisioned the area will be developed.

First of all we understand that a grade separation will eventually be built on Chartwell Road at the rail tracks north of Cornwall Road. We have concerns that the subway of the grade separation will take on excessive stormwater during a major event and prevent emergency access to and from the area. If the same happens at the grade separation on Trafalgar Road the area will be effectively isolated. We wonder if it is possible to use the rail corridor right of way as a spillway to protect the transportation infrastructure of the area?

We are aware of a number of studies, in particular from the Residential Construction Council of Ontario (RESCON): "Streamlining the Development and Building Approvals Process in Ontario" (Version 1.1, updated July 17, 2018) and the Ontario Association of Architects study "Site Plan Delay Analysis" May 4, 2018 by the Altus Group, that undermines the planning process. With a concerted effort by the building industry and the support of other levels of government, our concern is that even with all of your excellent work and attempts to protect our lives and property, it will be for naught.

We applaud your efforts to encourage the use of roof drains, underground storm storage and ponding on parking areas but it appears that support may not be forthcoming from other levels of government that would ensure that these measures are installed and maintained as they were intended to function. As I have mentioned earlier, development in the area will have a cumulative affect. Not only from neighbouring development but the midtown core.

Thank you for the opportunity to comment on your excellent study.

Regards,

[REDACTED]

-----Original Message-----

From: Kristina Parker <kristina.parker@oakville.ca>

Sent: Thursday, March 18, 2021 10:00 AM

To: [REDACTED] Chipps, Steve <steve.chipps@woodplc.com>

Cc: Diana Friesen <diana.friesen@oakville.ca>

Subject: RE: Lower Wedgewood Creek Study

CAUTION: External email. Please do not click on links/attachments unless you know the content is genuine and safe.

Good morning,

Thank you for your email. Town staff agree, public consultation is critical for this study, in particular for those who are in close proximity to proposed works. Public consultation is also required as part of the Municipal Class Environmental Assessment process. To date, three notices have been delivered to homeowners within the flood risk area of both Lower Morrison and Lower Wedgewood Creeks. I have confirmed that your information is correctly included within the town's project stakeholder's communication table. A notice of study commencement was sent out in October 2016 to inform landowners that the town's consultant would be out inspecting the creek channel. A notice of an in-person open house for Public Information Centre #1 was delivered in June 2019. Most recently, a notice of public consultation #2 (virtual on website) was mailed in December 2020 (see your letter attached). In addition, all notices were advertised in the Oakville Beaver at least twice per meeting. We did receive quite a number of responses/comments from the virtual consultation earlier this year.

The consultant is working on the Environmental Study Report which will be taken to Town Council later this Spring and the draft report will be posted for a 30 day review period at that time. A notice of study completion will be delivered to adjacent landowners to notify of this opportunity to comment.

I would be happy to discuss the alternatives with you to get your feedback. If you like, I can call the number that you provided below later today or tomorrow.

Best regards,

Kristina

Kristina Parker, M.A.Sc., P.Eng.

Water Resource Engineer

Transportation and Engineering

Town of Oakville | 905-845-6601 ext.3889 | f: 905-338-4414 | [www.oakville.ca](http://www.oakville.ca)

-----Original Message-----

From: [REDACTED]

Sent: March 17, 2021 6:05 PM

To: Kristina Parker <[kristina.parker@oakville.ca](mailto:kristina.parker@oakville.ca)>; [steve.chipps@woodplc.com](mailto:steve.chipps@woodplc.com)

Subject: Lower Wedgewood Creek Study

Hello,

We are the home owners who live at [REDACTED] Wedgewood Drive - our house is right beside the culvert on Wedgewood Dr. We were recently made aware of a study for which there was a second and last public

input session on January 20. We looked at the website and see a proposal to change the culvert on Wedgewood Dr. It is disturbing that we were not notified directly considering we would be one of or the most affected by the potential changes - it seems from our perspective this project has been communicated to public very quietly.

We have questions and concerns about this proposal. Can we speak to one or both of you or can you recommend someone else?

Thank you,

A black rectangular redaction box covering the signature of the sender.

-----Original Message-----

From: Kristina Parker <kristina.parker@oakville.ca>

Sent: Thursday, March 18, 2021 10:00 AM

To: [REDACTED] Chipps, Steve <steve.chipps@woodplc.com>

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Sent: March 17, 2021 6:05 PM

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Thank you,

A black rectangular redaction box covering the signature of the sender.



May 24, 2024

Sean Stewart, RPP MCIP, Environmental Planner  
Conservation Halton  
2596 Britannia Road West,  
Burlington, ON, L7P 0G3

BY EMAIL ONLY (sstewart@hrca.on.ca)

**Re: Lower Morrison and Lower Wedgewood Creeks Flood Mitigation Opportunities Study – Midtown Stormwater Management Criteria  
CH File: AMPR-413 (MPR 696); Town File: FS-194-15**

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The Town of Oakville (Town), provides the following Commitment Letter to Conservation Halton (CH) regarding the ongoing Lower Morrison and Lower Wedgewood Creeks Flood Mitigation Opportunities Study Class Environmental Assessment (Class EA) being prepared by WSP Environment & Infrastructure Canada Limited (WSP), as discussed with CH and WSP on September 7, 2023. The September 7, 2023 meeting was held to discuss CH's comments dated July 19, 2023, on the Draft Final Class EA report dated May 18, 2023. An outcome of the meeting with CH, included a Commitment Letter from the Town to CH, to address CH's Key Comment No. 2 from the July 19, 2023, CH Comment Letter as per the following:

- *With regard to the Midtown Area, it is recommended that stormwater management (SWM) targets be verified using a model supported for regulatory purposes (i.e. update to PCSWMM hydrologic model for the Regional storm and 1:100 year design storm). Further, future condition Regional Storm flows should also be assessed to confirm no increases, as Regional Storm controls are not currently proposed.*

In discussion with CH on September 7, 2023, CH indicated that CH had concerns related to the stormwater management targets established by the PCSWMM hydrologic model for the Midtown Area as per the following:

- i. The PCSWMM model is not considered a model to be used for Regulatory purposes and to be used define Regulatory floodplain limits.
- ii. The PCSWMM model is a dual drainage model, that includes major and minor stormwater systems. Surge conditions existing in the model and limited ponding allowance in the major system may result in volume loss as indicated by the 1% continuity error at Lake Ontario in the model output.
- iii. The PCSWMM model contains storage features (i.e. ponds and tanks)
- iv. The PCSWMM model does not consider the spill condition from the Morrison Wedgewood Diversion Channel as determined within the Flood Risk Mapping and Spill Quantification – Morrison-Wedgewood Diversion Channel Volume 1 – Hydrology Modelling Report, and Volume II – Hydraulic Modelling Report, Morrison Hershfield Ltd., March 31, 2020, and the Addendum to the study, dated March 12, 2021.

Further to CH's concerns, the Town:

- i. Acknowledges the Draft Final Class EA PCSWMM model does not define Regulatory storm conditions to be used for regulatory flood hazard delineations.
  - ii. Commits to assessing, verifying, and updating final stormwater management targets for the Midtown area in consultation with CH through the Midtown Implementation Program.
  - iii. Will work with CH to establish draft stormwater management targets for ongoing development within the Midtown area. These interim stormwater management targets will be used until final targets are established through the Midtown Implementation Program. To assess, verify and update interim targets, the Draft Final Class EA PCSWMM model will be refined to remove storage elements for the 100-year storm event, and address volume loss concerns as well as incorporate the available Morrison Wedgewood Diversion Channel spill condition hydrographs, for erosion control and flood control (2-year to 100-year storm events).
  - iv. Will verify stormwater targets for development within the Midtown area using the hydrologic model from the *1993 Lower Morrison / Wedgewood Creeks Flood, Erosion and Master Drainage Plan Study* (RVA, 1993), given the flows from this study are currently used for regulatory floodplain mapping purposes in the Lower Morrison and Lower Wedgewood watersheds.
- i.

The Town of Oakville provides this Commitment Letter to CH, as part of the ongoing approval process for the Lower Morrison and Lower Wedgewood Creeks Flood Mitigation Opportunities Study Class EA and looks forward to completing and filing the Class EA, as discussed with CH in 2023. The Town appreciates CH's commitment to Class EA process and establishing appropriate stormwater management within the Midtown Area. The Commitment Letter will be incorporated into the Final Class EA document and referenced within the Class EA recommendations.

Sincerely,

---

Diana Michalakos,  
Project Leader, Capital Projects,

---

Philip Kelly,  
Manager, Design and Construction.

cc: Steve Chipps, WSP  
Alex Lenarduzzi, CH  
Matt Howatt, CH