

Appendix C

Agency Correspondence

From: [Varga, Steve \(MNRF\)](#)
To: [Jason Caldwell](#); [Golby, Karen \(MNRF\)](#)
Cc: [Nicole Charlton](#)
Subject: RE: Request for Natural Heritage Information: Joshua Creek MNRF
Date: Thursday, April 23, 2020 12:52:43 PM

Hi Jason

Thank you for your email. You may experience some delays or disruptions as we follow recommendations of health professionals to slow the COVID-19 virus from spreading. The majority of staff from this office will be working off-site until further notice. We will respond as soon as possible. We appreciate your patience and apologize for any inconvenience. Visit Ontario's [website](#) to learn more about how the province continues to protect Ontarians from COVID-19.

I'm responding to your email in regards to wetlands and ANSIs. Other staff at our office will be dealing with your aquatic information request. The province's "Make a Natural Heritage Map" website can be consulted for ANSIs and evaluated and un-evaluated wetlands.

Within your subject lands MNRF does not have any ANSIs or evaluated wetlands.

While there are no evaluated wetlands on the subject lands, all wetlands evaluated or un-evaluated are regulated by Conservation Halton (HRCA). You should consult HRCA to see if they have any regulated wetlands in your subject lands.

You should deal with HRCA in regards to ESAs and for any flora and fauna information that HRCA would have for your subject lands.

For Species-at-Risk (SAR) you need to deal with MECP. MNRF no longer handles SAR requests.

All the best
Steve Varga
Management Biologist
MNRF Aurora District
steve.varga@ontario.ca

From: Jason Caldwell <Jason.Caldwell@ghd.com>
Sent: Tuesday, April 21, 2020 2:28 PM
To: Golby, Karen (MNRF) <karen.golby@ontario.ca>; Varga, Steve (MNRF) <steve.varga@ontario.ca>
Cc: Nicole Charlton <Nicole.Charlton@ghd.com>
Subject: Request for Natural Heritage Information: Joshua Creek MNRF

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Good afternoon,

GHD has been retained to provide recommendations relevant to the flood mitigations options for

Joshua Creek. This watercourse feature flows directly into Lake Ontario and is located on the eastern boundary of the Town of Oakville.

In fulfillment of this work, GHD is requesting current background information for Species-at-Risk and natural heritage information within and surrounding the project limits to complete our standard background review process. Please find attached a PDF of the Study Area location.

Through an initial review of NHIC and LIO databases, we have identified records for the following SAR and Natural Heritage features within the vicinity of our study area:

- Monarch
- Mottled Duskywing
- Bank swallow
- Barn swallow
- Bobolink
- Chimney swift
- Common nighthawk
- Eastern meadowlark
- Eastern wood-pewee
- Grasshopper sparrow
- Henslow's sparrow
- Northern bobwhite
- Peregrine falcon
- Eastern whip-poor-will
- Wood thrush
- Northern map turtle
- American chestnut
- Butternut
- Wildlife Concentration Area – Mixed Wader Nesting Colony
- Two separate Environmentally Sensitive Areas along creek feature identified (Town of Oakville Natural Features Figure F2)

Any additional information we are seeking includes the following:

Aquatic

- Fish communities and species
- Confirmed or potential spawning/rearing/refuge/feeding habitat
- Mapping/thermal regimes of associated watercourses and tributaries (if no information available, the closest creek/feature would be helpful)
- Fish sampling stations for watercourses at or within proximity of the crossing locations, if available
- Natural Resource and Values Information System (NRVIS) data

Terrestrial

- Site District Reports
- Records of SAR (both terrestrial and aquatic flora and fauna) - if possible, UTM's/accuracy codes, etc.

- Records of other wildlife (including road mortality)
- Designated areas (i.e., Areas of Natural and Scientific Interest (ANSI), Environmentally Significant Areas (ESA), Provincially Significant Wetlands (PSW))
- Sensitive avian nesting/over-wintering/foraging habitat
- NRVIS data (i.e., heronries, deer yards, etc.)

NOTE: Mapping data in GIS (shapefile) format would be appreciated, if possible.

Please let me know if you have any questions or require any further information. We look forward to your response to our request.

Thank you in advance,

Jason Caldwell, B.Sc.
Ecological Technician
GHD

T: 1-519-340-4301 | F: 1-519-884-0525 | E: jason.caldwell@ghd.com | www.ghd.com
455 Phillip St, Waterloo, ON N2L 3X2 Canada

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From: Diana Friesen
Cc: [Janusz Czuj](#)
Subject: Joshua Creek Flood Mitigation Study Notice of Study Commencement
Date: Thursday, August 06, 2020 3:46:18 PM
Attachments: [Joshua Creek Flood Study Notice of Study Commencement.pdf](#)

- FYI -

The Town of Oakville has initiated a study to assess flood mitigation opportunities associated with Joshua's Creek. The attached serves as the formal 'Notice of Study Commencement' for your information.

Best regards,

Diana Friesen
Water Resources Technologist
Development Engineering
Town of Oakville | 905-845-6601, ext.3904 | www.oakville.ca

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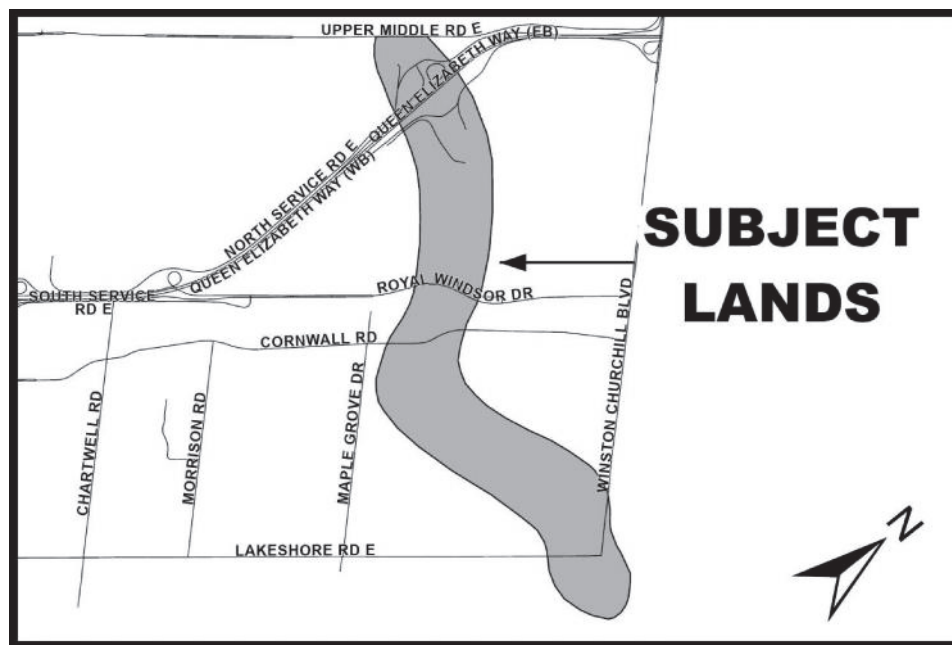
To be the most livable town in Canada.

Notice of Study Commencement

Municipal Class Environmental Assessment Joshua Creek Flood Mitigation Opportunities Study Upper Middle to Lake Ontario

The Study

The Town of Oakville has initiated a Municipal Class Environmental Assessment (Class EA) to assess flood risks along the Joshua Creek south of Upper Middle Road to Lake Ontario. The focus of this study will be to understand these risks and then establish approaches to mitigate them. This study builds on the 2008 "Town-wide Flood Prioritization Study Review," by undertaking a more detailed study of creek channel reaches with flood-prone sites in an effort to determine the most viable and responsible mitigation options.



Joshua Creek Flood Mitigation Opportunities Study Key Map

The Process

The study is being carried out in accordance with the requirements of a Schedule B project under the Municipal Engineers Association (MEA) Municipal Class EA document (October 2000, as amended in 2007, 2011 and 2015), which is an approved process under the Ontario *Environmental Assessment Act*. Two Public Information Centres (PICs) are being planned to discuss issues related to the project, including alternative solutions, evaluation criteria, environmental impacts and mitigation measures. PIC dates and details will be advertised as the study progresses. Once the study is complete, an Environmental Study Report (ESR) will be prepared and available for public review and comment. A Notice of Completion will be issued at that stage.

Comments Invited

The town appreciates your feedback and encourages you to get involved. A key component of the study is consultation with interested stakeholders, Indigenous groups, the public, landowners and regulatory agencies. You are encouraged to provide your comments so that they may be considered in the study. If you would like further information on the study, have any questions or comments, or would like to be added to the study mailing list, please contact

Diana Friesen, C.E.T

Water Resources Technologist
Town of Oakville
Tel: 905-845-6601 x 3904
email: Diana.Friesen@oakville.ca

Janusz Czuj, P.Eng.

Project Manager
GHD
Tel: 519-340-4269
email: janusz.czuj@ghd.com

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

First issued notice: August 6, 2020

From: [Snell, Shamus \(MECP\)](#)
To: [Amy ouglas](#)
Cc: [Nicole Charlton](#); [Jason Caldwell](#)
Subject: MECP SAR Review: Joshua Creek Information Request
Date: Tuesday, October 2, 2020 10:45:1 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

Hi Amy,

The Ministry of the Environment, Conservation and Parks (MECP) Species at Risk Branch (SARB) has conducted review of Joshua Creek and the areas directly adjacent to it and detected the one other Species at Risk (SAR) occurrence in addition to confirming those identified in the email below.

- Horned Grebe (*Podiceps auratus*)

While this review represents MECP's best currently available information, it is important to note that a lack of information for a area does not mean that SAR or their habitat are not present. There are many areas where the Government of Ontario does not currently have information, especially in areas where surveys have not been performed.

Typically, information related to Wetland Evaluation Reports is best confirmed with Ministry of Natural Resources and Forestry as they are the lead agency for confirming and reviewing wetland evaluations. SARB main focus is to issue authorizations related to the Endangered Species Act and provide information and guidance related to SAR.

Regards,

Shamus Snell
A/ Management Biologist
Species at Risk Branch
Ministry of the Environment, Conservation and Parks
Email: shamus.snell@ontario.ca

From: Amy Douglas <Amy.Douglas@ghd.com>
Sent: October 14, 2020 5:37 PM
To: Species at Risk (MECP) <SAROntario@ontario.ca>
Cc: Nicole Charlton <Nicole.Charlton@ghd.com>; Jason Caldwell <Jason.Caldwell@ghd.com>
Subject: Follow-up Request for Natural Heritage Information - No Reply Previously

CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

Good evening,

A request for information was submitted back in April 2020. We are still waiting for a response. Please find the original email below:

GHD has been retained to provide recommendations relevant to the flood mitigations options for Joshua Creek. This watercourse feature flows directly into Lake Ontario and is located on the eastern boundary of the Town of Oakville.

In fulfillment of this work, GHD is requesting current background information for Species-at-Risk and natural heritage information within and surrounding the project limits to complete our standard background review process. Please find attached a PDF of the Study Area location.

Through an initial review of NHIC and LIO databases, we have identified records for the following SAR and Natural Heritage features within the vicinity of our study area:

- Monarch
- Mottled Duskywing
- Bank swallow
- Barn swallow
- Bobolink
- Chimney swift
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- Eastern meadowlark
- Eastern wood-pewee
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- Henslow's sparrow
- Northern bobwhite
- Peregrine falcon
- Eastern whip-poor-will
- Wood thrush
- Northern map turtle
- American chestnut
- Butternut
- Wildlife Concentration Area – Mixed Wader Nesting Colony
- Two separate Environmentally Sensitive Areas along creek feature identified (Town of Oakville Natural Features Figure F2)

We are seeking any additional information such as Natural Heritage Information, Wetland Evaluation Reports, SAR data, and any other data you feel is valuable for this assessment.

NOTE: Mapping data in GIS (shapefile) format would be appreciated, if possible.

We realise your agency is not the holder of all of the data requested in this email, but we appreciate any information you can share.

Please let me know if you have any questions or require any further information. We look forward to your response to our request.

Thank you in advance,
Kind regards,
Amy Douglas, M.Sc.

Terrestrial Ecologist

GHD

Proudly employee owned

T Phillip Street Waterloo Ontario N L Canada | M | E am_douglas_ghd.com | [ghd.com](http://www.ghd.com)

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From: [Barb Veale](#)
To: [Brad Rennick](#); [Janus C. U.](#); [Diana Friesen](#)
Cc: [Nicole Charlton](#); [Jason Caldwell](#); [Matt Howatt](#)
Subject: RE: Request for Natural Heritage Information: Joshua Creek CH
Date: Thursday, April 30, 2020 11:14:14 AM
Attachments: [image001.png](#)
[2020_04_30_A_Joshua_Creek.pdf](#)

Brad – Here is a signed copy from me.

Thanks,
Barb

Barbara Veale PhD, MCIP, RPP
Director, Planning and Watershed Management

Conservation Halton
2596 Britannia Road West, Burlington, ON L7P 0G3
905.336.1158 ext. 2273 | Fax 905.336.6684 | bveale@hrca.on.ca
conservationhalton.ca

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From: Brad Rennick <brennick@hrca.on.ca>
Sent: April-29-20 3:05 PM
To: janusz.czuj@ghd.com; Diana Friesen <diana.friesen@oakville.ca>; Barb Veale <bveale@hrca.on.ca>
Cc: Nicole Charlton <Nicole.Charlton@ghd.com>; Jason Caldwell <Jason.Caldwell@ghd.com>; Matt Howatt <mhowatt@hrca.on.ca>
Subject: RE: Request for Natural Heritage Information: Joshua Creek CH

Hello all,

I have updated the agreement, please use this version instead.

Regards,

Brad

From: Brad Rennick
Sent: April 29, 2020 1:32 PM
To: janusz.czuj@ghd.com; Diana Friesen <diana.friesen@oakville.ca>
Cc: Nicole Charlton <Nicole.Charlton@ghd.com>; Jason Caldwell <Jason.Caldwell@ghd.com>; Matt Howatt <mhowatt@hrca.on.ca>
Subject: RE: Request for Natural Heritage Information: Joshua Creek CH

Hello,

I have attached Conservation Halton's data licensing agreement to this email; please review, sign and return it at your convenience. Upon completion, I can delivery the requested data.

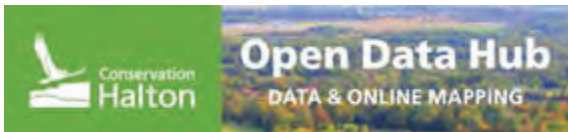
Regards,

Brad Rennick

GIS Analyst Lead

Conservation Halton

2596 Britannia Road West, Burlington, ON L7P 0G3
905.336.1158 ext. 2327 | Fax 905.336.7014 | brennick@hrca.on.ca
conservationhalton.ca



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From: Jason Caldwell <Jason.Caldwell@ghd.com>
Sent: April 21, 2020 2:27 PM
To: Matt Howatt <mhowatt@hrca.on.ca>; GIS Request <gis@hrca.on.ca>
Cc: Nicole Charlton <Nicole.Charlton@ghd.com>
Subject: Request for Natural Heritage Information: Joshua Creek CH

Good afternoon,

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- Sensitive avian nesting/over-wintering/foraging habitat
- NRVIS data (i.e., heronries, deer yards, etc.)

NOTE: Mapping data in GIS (shapefile) format would be appreciated, if possible.

Please see that GHD Staff have attached a digital information request form to supplement our inquiry.

Please let me know if you have any questions or require any further information. We look forward to your response to our request.

Thank you in advance,

Jason Caldwell, B.Sc.
Ecological Technician
GHD

T: 1-519-340-4301 | F: 1-519-884-0525 | E: jason.caldwell@ghd.com | www.ghd.com
455 Phillip St, Waterloo, ON N2L 3X2 Canada

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From: EA Notices to CRegion (MECP)
To: [Diana Friesen](#)
Cc: [Janusz Czuj](#)
Subject: RE: Joshua Creek Flood Mitigation Study Notice of Study Commencement
Date: Monday, August 10, 2020 3:12:07 PM

Hi Diana,

Thank you for your email. This is a friendly reminder that you must also forward to this address the completed Project Information Form for your project. I have included information on our EA notifications procedure below for your reference.

Thanks,
Trevor

Trevor Bell | Environmental Planner/Environmental Assessment Coordinator

Project Review Unit, Environmental Assessment and Permissions Branch

Ministry of the Environment, Conservation and Parks

5775 Yonge Street, 8th floor, Toronto ON, M2M 4J1

Phone: 437-770-3731 | trevor.bell@ontario.ca

Dear Project Team,

Thank you for your email. I would like to inform you of a new process related to providing Class EA notifications to the Ministry of the Environment and Climate Change that is in effect as of **May 1, 2018**. The information is below. Please read carefully.

Please follow the new process and submit an electronic version of the Notice and completed Project Information Form to the Central Region email (eanotification.cregion@ontario.ca). All Notices of commencement and completion are to follow the new process. If you have any questions, please feel free to contact me. Please feel free to pass along this information to your colleagues. Thank you.

New Notification Procedure:

The Ministry of the Environment and Climate Change becomes aware of streamlined environmental assessments (e.g., class environmental assessment projects, electricity projects and waste management projects) through notifications by project owners. Notifying the ministry is an important step in the streamlined environmental assessment processes. As part of the ministry's ongoing efforts to improve processes and ensure the ministry has an opportunity to provide input on projects undergoing streamlined environmental assessments, the ministry has established dedicated email accounts in each regional office. These accounts will be used to receive notices as required in your class environmental assessment process along with a new "Project Information Form". As of May 1, 2018, proponents must use this new process.

4 Step Process for Submitting Notices for Streamlined EAs

To submit your notice you need to do the following:

1. **Download and complete the Project Information Form.** (The Form can be found [here](#) under "Streamlined EAs". It is an excel spreadsheet with columns that need to be filled out by the proponent. The form has been developed for ease of use (i.e. drop down pick list for most fields). Instructions on filling out the form are contained

in 2 tabs within the form itself).

2. **Create an email. The subject line of your email must include in this order: project location, type of streamlined EA and project name**

For example:

- York Region, MEA Class EA, Elgin Mills Rd East (Bayview to Woodbine)
- Durham Region, Electricity Screening Process, New Cogeneration Station
- City of Ottawa, Waste Management Screening Process, Landfill Expansion

3. **Attach the completed Project Information Form (in excel format) and a copy of your project notice (in PDF format) to the email.**

4. **Send by email to the appropriate ministry regional office:**

Central Region – eanotification.cregion@ontario.ca

Eastern Region – eanotification.eregion@ontario.ca

Northern Region – eanotification.nregion@ontario.ca

South West Region – eanotification.swregion@ontario.ca

West Central Region – eanotification.wcregion@ontario.ca

Notes:

- The hyperlink to the [MOECC District Officer Locator](#) website, can be used to assist with determining what ministry region your project is located.
- The minimum requirement is to send project initiation and completion notices (and where applicable, Revised Notice of Completion, Notice of Filing of Addendum, Statement of Completion). All other notices (e.g. Notice of PIC/OH) can be sent to the Regional email address but not required.
- If your project is located in more than one ministry region, you need to submit your notices to all appropriate regions.
- You must continue to meet other notification requirements (e.g. Notice of Completion required to be sent to MEA.Notices.EAAB@ontario.ca).

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

Sent: August 6, 2020 3:45 PM

Cc: Janusz Czuj <Janusz.Czuj@ghd.com>

Subject: Joshua Creek Flood Mitigation Study Notice of Study Commencement

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- FYI -

The Town of Oakville has initiated a study to assess flood mitigation opportunities associated with Joshua's Creek. The attached serves as the formal 'Notice of Study Commencement' for your information.

Best regards,

Diana Friesen
Water Resources Technologist
Development Engineering

Town of Oakville | 905-845-6601, ext.3904 | www.oakville.ca

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From: Harvey, Joseph (MHSTCI)
To: Diana.Friesen@oakville.ca
Cc: [Minkin, Dan \(MHSTCI\)](#); [Barboza, Karla \(MHSTCI\)](#); [Janusz Czuj](#)
Subject: File 0012871: Joshua Creek Flood Mitigation Study Notice of Study Commencement
Date: Thursday, August 20, 2020 3:55:47 PM
Attachments: [2020-08-20_JoshuaCreekFloodMitigationMHSTCI-Ltr.pdf](#)

Diana Friesen,

Please find attached MHSTCI's comments for the above referenced project. Contact Dan Minkin with any further questions or concerns.

Joseph Harvey

On behalf of

Dan Minkin
Heritage Planner
Heritage Planning Unit
Dan.Minkin@ontario.ca

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Ministry of Heritage, Sport,
Tourism and Culture Industries

Programs and Services Branch
401 Bay Street, Suite 1700
Toronto, ON M7A 0A7
Tel: 416.314.7147

Ministère des Industries du Patrimoine,
du Sport, du Tourisme et de la Culture

Direction des programmes et des services
401, rue Bay, Bureau 1700
Toronto, ON M7A 0A7
Tél: 416.314.7147



August 20, 2020

EMAIL ONLY

Diana Friesen, C.E.T
Water Resources Technologist
Town of Oakville
1225 Trafalgar Road
Oakville, ON L6H 0H3
Diana.Friesen@oakville.ca

MHSTCI File : 0012871
Proponent : Town of Oakville
Subject : Notice of Study Commencement – Schedule ‘B’ MCEA
Project : Joshua Creek Flood Mitigation Opportunities Study
Location : Town of Oakville

Dear Diana Friesen:

Thank you for providing the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) with the Notice of Study Commencement for the above-referenced project. MHSTCI's interest in this Environmental Assessment (EA) project relates to its mandate of conserving Ontario's cultural heritage, which includes:

- Archaeological resources, including land and marine;
- Built heritage resources, including bridges and monuments; and,
- Cultural heritage landscapes.

Under the EA process, the proponent is required to determine a project's potential impact on cultural heritage resources.

Project Summary

The Town of Oakville has initiated a Municipal Class Environmental Assessment (Class EA) to assess flood risks along the Joshua Creek south of Upper Middle Road to Lake Ontario. The study is being carried out in accordance with the requirements of a Schedule B project under the Municipal Engineers Association (MEA) Municipal Class EA document (October 2000, as amended in 2007, 2011 and 2015), which is an approved process under the Ontario Environmental Assessment Act.

Identifying Cultural Heritage Resources

While some cultural heritage resources may have already been formally identified, others may be identified through screening and evaluation. Indigenous communities may have knowledge that can contribute to the identification of cultural heritage resources, and we suggest that any engagement with Indigenous communities includes a discussion about known or potential cultural heritage resources that are of value to these communities. Municipal Heritage Committees, historical societies and other local heritage organizations may also have knowledge that contributes to the identification of cultural heritage resources.

Archaeological Resources

This EA project may impact archaeological resources and should be screened using the MHSTCI [Criteria for Evaluating Archaeological Potential](#) to determine if an archaeological assessment is needed. MHSTCI archaeological sites data are available at archaeology@ontario.ca. If the EA project area exhibits archaeological potential, then an archaeological assessment (AA) should be undertaken by an archaeologist licenced under the *OHA*, who is responsible for submitting the report directly to MHSTCI for review.

Built Heritage and Cultural Heritage Landscapes

The MHSTCI [Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes](#) should be completed to help determine whether this EA project may impact cultural heritage resources. If potential or known heritage resources exist, MHSTCI recommends that a Heritage Impact Assessment (HIA), prepared by a qualified consultant, should be completed to assess potential project impacts. Our Ministry's [Info Sheet #5: Heritage Impact Assessments and Conservation Plans](#) outlines the scope of HIAs. Please send the HIA to MHSTCI for review and make it available to local organizations or individuals who have expressed interest in review.

Environmental Assessment Reporting

All technical cultural heritage studies and their recommendations are to be addressed and incorporated into EA projects. Please advise MHSTCI whether any technical cultural heritage studies will be completed for this EA project, and provide them to MHSTCI before issuing a Notice of Completion or commencing any work on the site. If screening has identified no known or potential cultural heritage resources, or no impacts to these resources, please include the completed checklists and supporting documentation in the EA report or file.

Thank you for consulting MHSTCI on this project and please continue to do so throughout the EA process. If you have any questions or require clarification, do not hesitate to contact Dan Minkin.

Joseph Harvey
On behalf of

Dan Minkin
Heritage Planner
Heritage Planning Unit
Dan.Minkin@ontario.ca

Copied to: Janusz Czuj, Project Manager, GHD

It is the sole responsibility of proponents to ensure that any information and documentation submitted as part of their EA report or file is accurate. MHSTCI makes no representation or warranty as to the completeness, accuracy or quality of the any checklists, reports or supporting documentation submitted as part of the EA process, and in no way shall MHSTCI be liable for any harm, damages, costs, expenses, losses, claims or actions that may result if any checklists, reports or supporting documents are discovered to be inaccurate, incomplete, misleading or fraudulent.

Please notify MHSTCI if archaeological resources are impacted by EA project work. All activities impacting archaeological resources must cease immediately, and a licensed archaeologist is required to carry out an archaeological assessment in accordance with the *Ontario Heritage Act* and the *Standards and Guidelines for Consultant Archaeologists*.

If human remains are encountered, all activities must cease immediately and the local police as well as the Registrar, Burials of the Ministry of Government and Consumer Services (416-326-8800) must be contacted. In situations where human remains are associated with archaeological resources, MHSTCI should also be notified to ensure that the site is not subject to unlicensed alterations which would be a contravention of the *Ontario Heritage Act*.

From: SecondaryLandUse@HydroOne.com
To: [Janusz Czuj](#)
Cc: [Diana.Friesen@oakville.ca](#)
Subject: Hydro One Response: Joshua Creek Flood Mitigation Opportunities Study
Date: Friday, August 28, 2020 8:33:41 AM
Attachments: [20200828-NoticeOfCommence-Joshua Creek Flood Mitigation Opportunities Study.pdf](#)

Please see the attached for Hydro One's Response.

Hydro One Networks Inc
SecondaryLandUse@HydroOne.com

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Hydro One Networks Inc
483 Bay St
Toronto, ON

August 28, 2020

Re: Joshua Creek Flood Mitigation Opportunities Study

Attention:
Janusz Czuj, P.Eng.
Project Manager
GHD

Thank you for sending us notification regarding (Joshua Creek Flood Mitigation Opportunities Study). In our preliminary assessment, we have confirmed that Hydro One has existing high voltage Transmission facilities within your study area (see map attached). At this time we do not have sufficient information to comment on the potential resulting impacts that your project may have on our infrastructure. As such, we must stay informed as more information becomes available so that we can advise if any of the alternative solutions present actual conflicts with our assets, and if so; what resulting measures and costs could be incurred by the proponent. Note that this response does not constitute approval for your plans and is being sent to you as a courtesy to inform you that we must continue to be consulted on your project.

In addition to the existing infrastructure mentioned above, the applicable transmission corridor may have provisions for future lines or already contain secondary land uses (e.g., pipelines, watermains, parking). Please take this into consideration in your planning.

Also, we would like to bring to your attention that should (Joshua Creek Flood Mitigation Opportunities Study) result in a Hydro One station expansion or transmission line replacement and/or relocation, an Environmental Assessment (EA) will be required as described under the Class Environmental Assessment for Minor Transmission Facilities (Hydro One, 2016). This EA process would require a minimum of 6 months for a Class EA Screening Process (or up to 18 months if a Full Class EA were to be required) to be completed. Associated costs will be allocated and recovered from proponents in accordance with the Transmission System Code. If triggered, Hydro One will rely on studies completed as part of the EA you are current undertaking.

Consulting with Hydro One on such matters during your project's EA process is critical to avoiding conflicts where possible or, where not possible, to streamlining processes (e.g., ensuring study coverage of expansion/relocation areas within the current EA). Once in receipt of more specific project information regarding the potential for conflicts (e.g., siting, routing), Hydro One will be in a better position to communicate objections or not objections to alternatives proposed.

If possible at this stage, please formally confirm that Hydro One infrastructure and associated rights-of-way will be completely avoided, or if not possible, allocate appropriate lead-time in your project schedule to collaboratively work through potential conflicts with Hydro One, which ultimately could result in timelines identified above.

In planning, note that developments should not reduce line clearances or limit access to our infrastructure at any time. Any construction activities must maintain the electrical clearance from the transmission line conductors as specified in the Ontario Health and Safety Act for the respective line voltage.

Be advised that any changes to lot grading or drainage within, or in proximity to Hydro One transmission corridor lands must be controlled and directed away from the transmission corridor.

Please note that the proponent will be held responsible for all costs associated with modifications or relocations of Hydro One infrastructure that result from your project, as well as any added costs that may be incurred due to increased efforts to maintain said infrastructure.

We reiterate that this message does not constitute any form of approval for your project. Hydro One must be consulted during all stages of your project. Please ensure that all future communications about this and future project(s) are sent to us electronically to secondarylanduse@hydroone.com

Sent on behalf of,

***Secondary Land Use
Asset Optimization
Strategy & Integrated Planning
Hydro One Networks Inc.***

From: [Janusz Czuj](#)
To: [Sarah Irwin](#); [Sarah Shields](#)
Subject: FW: Joshua Creek Flood Mitigation Opportunities Study - Schedule B Municipal Class EA
Date: Thursday, September 17, 2020 3:35:00 PM
Attachments: [MECP Response Letter Notice of Commencement Joshua Creek Flood Mitigation Opportunities Study.pdf](#)

Hi Sarahs
This just came in
Thanks

Janusz

From: Bell, Trevor (MECP) <Trevor.Bell@ontario.ca>
Sent: Thursday, September 17, 2020 3:11 PM
To: Diana Friesen (diana.friesen@oakville.ca) <diana.friesen@oakville.ca>
Cc: Janusz Czuj <Janusz.Czuj@ghd.com>; Dufresne, Tina (MECP) <Tina.Dufresne@ontario.ca>; Papageorgiou, Agni (MECP) <Agni.Papageorgiou@ontario.ca>
Subject: Joshua Creek Flood Mitigation Opportunities Study - Schedule B Municipal Class EA

Good afternoon,

Please find attached a letter from the Ministry of the Environment, Conservation and Parks, Environmental Approvals Branch, regarding the above mentioned project. Feel free to contact me directly with any questions or concerns you may have.

Sincerely,

Trevor Bell | Environmental Planner/Environmental Assessment Coordinator

Project Review Unit, Environmental Assessment and Permissions Branch

Ministry of the Environment, Conservation and Parks

5775 Yonge Street, 8th floor, Toronto ON, M2M 4J1

New Phone: 437-770-3731 | trevor.bell@ontario.ca

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Ministry of the Environment,
Conservation and Parks

Ministère de l'Environnement, de la
Protection de la nature et des Parcs

Environmental Assessment Branch

*Direction des évaluations
environnementales*



1st Floor
135 St. Clair Avenue W
Toronto ON M4V 1P5
Tel.: 416 314-8001
Fax.: 416 314-8452

Rez-de-chaussée
135, avenue St. Clair Ouest
Toronto ON M4V 1P5
Tél. : 416 314-8001
Télééc. : 416 314-8452

September 17, 2020

Diana Friesen, C.E.T
Water Resources Technologist
Town of Oakville
diana.friesen@oakville.ca
BY EMAIL ONLY

Re: **Joshua Creek Flood Mitigation Opportunities Study
Town of Oakville
Schedule B Municipal Class Environmental Assessment
Notice of Study Commencement**

Dear Ms. Friesen,

This letter is in response to the Notice of Commencement for the above noted project. The Ministry of the Environment, Conservation and Parks (MECP) acknowledges that the Town of Oakville has indicated that the study is following the approved environmental planning process for a Schedule B project under the Municipal Engineers Association's Municipal Class Environmental Assessment (Class EA).

The attached "Areas of Interest" document provides guidance regarding the ministry's interests with respect to the Class EA process. Please identify the areas of interest which are applicable to the project and ensure they are addressed. Proponents who address all the applicable areas of interest can minimize potential delays to the project schedule.

The Crown has a legal duty to consult Aboriginal communities when it has knowledge, real or constructive, of the existence or potential existence of an Aboriginal or treaty right and contemplates conduct that may adversely impact that right. Before authorizing this project, the Crown must ensure that its duty to consult has been fulfilled, where such a duty is triggered. Although the duty to consult with Aboriginal peoples is a duty of the Crown, the Crown may delegate procedural aspects of this duty to project proponents while retaining oversight of the consultation process.

The proposed project may have the potential to affect Aboriginal or treaty rights protected under Section 35 of Canada's *Constitution Act* 1982. Where the Crown's duty to consult is triggered in relation to the proposed project, **the MECP is delegating the procedural aspects of rights-based consultation to the proponent through this letter.** The Crown intends to rely on the delegated consultation process in discharging its duty to consult and maintains the right to participate in the consultation process as it sees fit.

Based on information provided to date and the Crown's preliminary assessment the proponent is required to consult with the following communities who have been identified as potentially affected by the proposed project:

- Mississaugas of the Credit First Nation;
- Six Nations of the Grand River;
- Haudenosaunee Confederacy Chiefs Council; and
- Huron-Wendat Nation, if there are potential archeological impacts

Steps that the proponent may need to take in relation to Aboriginal consultation for the proposed project are outlined in the "[Code of Practice for Consultation in Ontario's Environmental Assessment Process](#)".

Additional information related to Ontario's *Environmental Assessment Act* is available online at: www.ontario.ca/environmentalassessments

Please also refer to the attached document "A Proponent's Introduction to the Delegation of Procedural Aspects of consultation with Aboriginal Communities" for further information.

The proponent must contact the Director of Environmental Assessment Branch under the following circumstances subsequent to initial discussions with the communities identified by MECP:

- Aboriginal or treaty rights impacts are identified to you by the communities;
- You have reason to believe that your proposed project may adversely affect an Aboriginal or treaty right;
- Consultation with Indigenous communities or other stakeholders has reached an impasse; or
- A Part II Order request is expected based on impacts to Aboriginal or treaty rights.

The MECP will then assess the extent of any Crown duty to consult for the circumstances and will consider whether additional steps should be taken, including what role you will be asked to play should additional steps and activities be required.

Once the report is finalized, the proponent must issue a Notice of Completion providing a minimum 30-day period during which documentation may be reviewed and comment and input can be submitted to the Proponent.

Please ensure that the Notice of Completion advises that outstanding concerns are to be directed to the proponent for a response, and that in the event there are outstanding concerns regarding potential adverse impacts to constitutionally protected Aboriginal and treaty rights, Part II Order requests on those matters should be addressed in writing to:

Minister Jeff Yurek
Ministry of Environment, Conservation and Parks
777 Bay Street, 5th Floor
Toronto ON M7A 2J3
minister.mecp@ontario.ca

and

Director, Environmental Assessment Branch
Ministry of Environment, Conservation and Parks

135 St. Clair Ave. W, 1st Floor
Toronto ON, M4V 1P5
EABDirector@ontario.ca

Please note the project cannot proceed until at least 30 days after the end of the public review period provided for in the Notice of Completion.

Further, the project may not proceed after this time if:

- a Part II Order request has been submitted to the ministry regarding potential adverse impacts to constitutionally protected Aboriginal and treaty rights; or
- the Director has issued a Notice of Proposed Order regarding the project.

The public can request a higher level of assessment on a project if they are concerned about potential adverse impacts to constitutionally protected Aboriginal and treaty rights. In addition, the Minister may issue an order on his or her own initiative within a specified time period. The Director will issue a Notice of Proposed Order to the proponent if the Minister is considering an order for the project within 30 days after the conclusion of the comment period on the Notice of Completion. At this time, the Director may request additional information from the proponent.

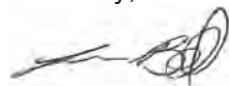
Once the requested information has been received, the Minister will have 30 days to make a decision or impose conditions on your project.

A draft copy of the report should be sent to me prior to the filing of the final report, allowing a minimum of 30 days for the ministry's technical reviewers to provide comments.

Please also ensure a copy of the final notice is sent to the ministry's Central Region EA notification email account (eanotification.cregion@ontario.ca) after the draft report is finalized.

Should you or your project team members have any questions regarding the material above, please contact me at trevor.bell@ontario.ca.

Sincerely,



Trevor Bell
Regional Environmental Assessment Coordinator

cc: Tina Dufresne, Manager, Halton Peel District Office, MECP
Agni Papageorgiou, Supervisor, Project Review Unit
Janush Czuj, Project Manager, GHD

Attachments: Areas of Interest
A Proponent's Introduction to the Delegation of Procedural Aspects of
consultation with Aboriginal Communities

AREAS OF INTEREST

It is suggested that you check off each applicable area after you have considered / addressed it.

Species at Risk

- The Ministry of the Environment, Conservation and Parks has now assumed responsibility of Ontario's Species at Risk program. For any questions related to subsequent permit requirements, please contact SAROntario@ontario.ca.

Planning and Policy

- Ontario has released "A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2019)" which replaces the "Growth Plan for the Greater Golden Horseshoe (2017)". More information, including the Plan, is found here: <https://www.placestogrow.ca>.
- Parts of the study area may be subject to the [A Place to Grow: Growth Plan for the Greater Golden Horseshoe](#) (2019), [Oak Ridges Moraine Conservation Plan](#) (2017), [Niagara Escarpment Plan](#) (2017), [Greenbelt Plan](#) (2017) or [Lake Simcoe Protection Plan](#) (2014). Applicable policies should be referenced in the report, and the proponent should describe how the proposed project adheres to the relevant policies in these plans.
- The [Provincial Policy Statement](#) (2020) contains policies that protect Ontario's natural heritage and water resources. Applicable policies should be referenced in the report, and the proponent should describe how the proposed project is consistent with these policies.

Source Water Protection (all projects)

The *Clean Water Act*, 2006 (CWA) aims to protect existing and future sources of drinking water. To achieve this, several types of vulnerable areas have been delineated around surface water intakes and wellheads for every municipal residential drinking water system that is located in a source protection area. These vulnerable areas are known as a Wellhead Protection Areas (WHPAs) and surface water Intake Protection Zones (IPZs). Other vulnerable areas that have been delineated under the CWA include Highly Vulnerable Aquifers (HVAs), Significant Groundwater Recharge Areas (SGRAs), Event-based modelling areas (EBAs), and Issues Contributing Areas (ICAs). Source protection plans have been developed that include policies to address existing and future risks to sources of municipal drinking water within these vulnerable areas.

Projects that are subject to the Environmental Assessment Act that fall under a Class EA, or one of the Regulations, have the potential to impact sources of drinking water if they occur in designated vulnerable areas or in the vicinity of other at-risk drinking water systems (i.e. systems that are not municipal residential systems). MEA Class EA projects may include activities that, if located in a vulnerable area, could be a threat to sources of drinking water (i.e. have the potential to adversely affect the quality or quantity of drinking water sources) and the activity could therefore be subject to policies in a source protection plan. Where an activity poses a risk to drinking water, policies in the local source protection plan may impact how or where that activity is undertaken. Policies may prohibit certain activities, or they may require risk management measures for these activities. Municipal Official Plans, planning decisions, Class EA projects (where the project includes an activity that is a threat to drinking water) and prescribed instruments must conform with policies that address significant risks to drinking water and must have regard for policies that address moderate or low risks.

- In October 2015, the MEA Parent Class EA document was amended to include reference to the

Clean Water Act (Section A.2.10.6) and indicates that proponents undertaking a Municipal Class EA project must identify early in their process whether a project is or could potentially be occurring with a vulnerable area. **Given this requirement, please include a section in the report on source water protection.**

- The proponent should identify the source protection area and should clearly document how the proximity of the project to sources of drinking water (municipal or other) and any delineated vulnerable areas was considered and assessed. Specifically, the report should discuss whether or not the project is located in a vulnerable area and provide applicable details about the area.
- If located in a vulnerable area, proponents should document whether any project activities are prescribed drinking water threats and thus pose a risk to drinking water (this should be consulted on with the appropriate Source Protection Authority). Where an activity poses a risk to drinking water, the proponent must document and discuss in the report how the project adheres to or has regard to applicable policies in the local source protection plan. This section should then be used to inform and be reflected in other sections of the report, such as the identification of net positive/negative effects of alternatives, mitigation measures, evaluation of alternatives etc.
- While most source protection plans focused on including policies for significant drinking water threats in the WHPAs and IPZs it should be noted that even though source protection plan policies may not apply in HVAs, these are areas where aquifers are sensitive and at risk to impacts and within these areas, activities may impact the quality of sources of drinking water for systems other than municipal residential systems.
- In order to determine if this project is occurring within a vulnerable area, proponents can use this mapping tool: <http://www.applications.ene.gov.on.ca/swp/en/index.php>. The mapping tool will also provide a link to the appropriate source protection plan in order to identify what policies may be applicable in the vulnerable area.
- For further information on the maps or source protection plan policies which may relate to their project, proponents must contact the appropriate source protection authority. **Please consult with the local source protection authority to discuss potential impacts on drinking water. The contact for this project is Diane Bloomfield at (905) 854-9229 ext. 233 or dbloomfiled@hrca.on.ca. Please document the results of that consultation within the report and include all communication documents/correspondence.**

More Information

For more information on the *Clean Water Act*, source protection areas and plans, including specific information on the vulnerable areas and drinking water threats, please refer to Conservation Ontario's website where you will also find links to the local source protection plan/assessment report.

A list of the prescribed drinking water threats can be found in section 1.1 of Ontario Regulation 287/07 made under the *Clean Water Act*. In addition to prescribed drinking water threats, some source protection plans may include policies to address additional "local" threat activities, as approved by the MECP.

Climate Change

Ontario is leading the fight against climate change through the [Climate Change Action Plan](#). Recently released, the plan lays out the specific actions Ontario will take in the next five years to meet its 2020 greenhouse gas reduction targets and establishes the framework necessary to meet its long-term

targets. As a commitment of the action plan, **the province has now finalized a guide, "[Considering Climate Change in the Environmental Assessment Process](#)" (Guide).**

The Guide is now a part of the Environmental Assessment program's Guides and Codes of Practice. The Guide sets out the MECP's expectation for considering climate change in the preparation, execution and documentation of environmental assessment studies and processes. The guide provides examples, approaches, resources, and references to assist proponents with consideration of climate change in EA. **Proponents should review this Guide in detail.**

- The MECP expects proponents to:
 1. Take into account during the assessment of alternative solutions and alternative designs, the following:
 - a. the project's expected production of greenhouse gas emissions and impacts on carbon sinks (climate change mitigation); and
 - b. resilience or vulnerability of the undertaking to changing climatic conditions (climate change adaptation).
 2. Include a discrete section in the report detailing how climate change was considered in the EA.

How climate change is considered can be qualitative or quantitative in nature, and should be scaled to the project's level of environmental effect. In all instances, both a project's impacts on climate change (mitigation) and impacts of climate change on a project (adaptation) should be considered.

- The MECP has also prepared another guide to support provincial land use planning direction related to the completion of energy and emission plans. The "[Community Emissions Reduction Planning: A Guide for Municipalities](#)" document is designed to educate stakeholders on the municipal opportunities to reduce energy and greenhouse gas emissions, and to provide guidance on methods and techniques to incorporate consideration of energy and greenhouse gas emissions into municipal activities of all types. We encourage you to review the Guide for information.

Air Quality, Dust and Noise

- If there are sensitive receptors in the surrounding area of this project, an air quality/odour impact assessment will be useful to evaluate alternatives, determine impacts and identify appropriate mitigation measures. The scope of the assessment can be determined based on the potential effects of the proposed alternatives, and typically includes source and receptor characterization and a quantification of local air quality impacts on the sensitive receptors and the environment in the study area. The assessment will compare to all applicable standards or guidelines for all contaminants of concern. **Please contact this office for further consultation on the level of Air Quality Impact Assessment required for this project if not already advised.**
- **If a full Air Quality Impact Assessment is not required for the project, the report should still contain:**
 - A discussion of local air quality including existing activities/sources that significantly impact local air quality and how the project may impact existing conditions;
 - A discussion of the nearby sensitive receptors and the project's potential air quality impacts on present and future sensitive receptors;
 - A discussion of local air quality impacts that could arise from this project during both construction and operation; and

- A discussion of potential mitigation measures.
- As a common practice, “air quality” should be used as an evaluation criterion for all road projects.
- Dust and noise control measures should be addressed and included in the construction plans to ensure that nearby residential and other sensitive land uses within the study area are not adversely affected during construction activities.
- The MECP recommends that non-chloride dust-suppressants be applied. For a comprehensive list of fugitive dust prevention and control measures that could be applied, refer to [Cheminfo Services Inc. Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities](#). report prepared for Environment Canada. March 2005.
- The report should consider the potential impacts of increased noise levels during the operation of the completed project. The proponent should explore all potential measures to mitigate significant noise impacts during the assessment of alternatives.

□ Ecosystem Protection and Restoration

- Any impacts to ecosystem form and function must be avoided where possible. The report should describe any proposed mitigation measures and how project planning will protect and enhance the local ecosystem.
- All natural heritage features should be identified and described in detail to assess potential impacts and to develop appropriate mitigation measures. The following sensitive environmental features may be located within or adjacent to the study area:
 - Areas of Natural and Scientific Interest (ANSIs)
 - Rare Species of flora or fauna
 - Watercourses
 - Wetlands
 - Woodlots

We recommend consulting with the Ministry of Natural Resources and Forestry (MNRF), Fisheries and Oceans Canada (DFO) and your local conservation authority to determine if special measures or additional studies will be necessary to preserve and protect these sensitive features. In addition, you may consider the provisions of the Rouge Park Management Plan if applicable.

□ Surface Water

- The report must include enough information to demonstrate that there will be no negative impacts on the natural features or ecological functions of any watercourses within the study area. Measures should be included in the planning and design process to ensure that any impacts to watercourses from construction or operational activities (e.g. spills, erosion, pollution) are mitigated as part of the proposed undertaking.
- Additional stormwater runoff from new pavement can impact receiving watercourses and flood conditions. Quality and quantity control measures to treat stormwater runoff should be considered for all new impervious areas and, where possible, existing surfaces. The ministry’s [Stormwater Management Planning and Design Manual \(2003\)](#) should be referenced in the report and utilized when designing stormwater control methods. **A Stormwater Management Plan should be prepared as part of the Class EA process** that includes:
 - Strategies to address potential water quantity and erosion impacts related to stormwater

draining into streams or other sensitive environmental features, and to ensure that adequate (enhanced) water quality is maintained

- Watershed information, drainage conditions, and other relevant background information
 - Future drainage conditions, stormwater management options, information on erosion and sediment control during construction, and other details of the proposed works
 - Information on maintenance and monitoring commitments.
- Ontario Regulation 60/08 under the *Ontario Water Resources Act* (OWRA) applies to the Lake Simcoe Basin, which encompasses Lake Simcoe and the lands from which surface water drains into Lake Simcoe. If the proposed sewage treatment plant is listed in Table 1 of the regulation, the report should describe how the proposed project and its mitigation measures are consistent with the requirements of this regulation and the OWRA.
 - Any potential approval requirements for surface water taking or discharge should be identified in the report. A Permit to Take Water (PTTW) under the OWRA will be required for any water takings that exceed 50,000 L/day, except for certain water taking activities that have been prescribed by the Water Taking EASR Regulation – *O. Reg. 63/16*. These prescribed water-taking activities require registration in the EASR instead of a PTTW. Please review the [Water Taking User Guide for EASR](#) for more information. Additionally, an Environmental Compliance Approval under the OWRA is required for municipal stormwater management works.

Groundwater

- The status of, and potential impacts to any well water supplies should be addressed. If the project involves groundwater takings or changes to drainage patterns, the quantity and quality of groundwater may be affected due to drawdown effects or the redirection of existing contamination flows. In addition, project activities may infringe on existing wells such that they must be reconstructed or sealed and abandoned. Appropriate information to define existing groundwater conditions should be included in the report.
- If the potential construction or decommissioning of water wells is identified as an issue, the report should refer to Ontario Regulation 903, Wells, under the OWRA.
- Potential impacts to groundwater-dependent natural features should be addressed. Any changes to groundwater flow or quality from groundwater taking may interfere with the ecological processes of streams, wetlands or other surficial features. In addition, discharging contaminated or high volumes of groundwater to these features may have direct impacts on their function. Any potential effects should be identified, and appropriate mitigation measures should be recommended. The level of detail required will be dependent on the significance of the potential impacts.
- Any potential approval requirements for groundwater taking or discharge should be identified in the report. A Permit to Take Water (PTTW) under the OWRA will be required for any water takings that exceed 50,000 L/day, with the exception of certain water taking activities that have been prescribed by the Water Taking EASR Regulation – *O. Reg. 63/16*. These prescribed water-taking activities require registration in the EASR instead of a PTTW. Please review the [Water Taking User Guide for EASR](#) for more information.

Contaminated Soils

- Since the removal or movement of soils may be required, appropriate tests to determine contaminant levels from previous land uses or dumping should be undertaken. If the soils are contaminated, you must determine how and where they are to be disposed of, consistent with

Part XV.1 of the Environmental Protection Act (EPA) and Ontario Regulation 153/04, Records of Site Condition, which details the new requirements related to site assessment and clean up. Please contact the appropriate MECP District Office for further consultation if contaminated sites are present.

- Any current or historical waste disposal sites should be identified in the report. The status of these sites should be determined to confirm whether approval pursuant to Section 46 of the EPA may be required for land uses on former disposal sites.
- The location of any underground storage tanks should be investigated in the report. Measures should be identified to ensure the integrity of these tanks and to ensure an appropriate response in the event of a spill. The ministry's Spills Action Centre must be contacted in such an event.
- The report should identify any underground transmission lines in the study area. The owners should be consulted to avoid impacts to this infrastructure, including potential spills.

Excess Materials Management

- Activities involving the management of excess soil should be completed in accordance with the MECP's current guidance document titled "[Management of Excess Soil – A Guide for Best Management Practices](#)" (2014).
- All waste generated during construction must be disposed of in accordance with ministry requirements

Servicing and Facilities

- Any facility that releases emissions to the atmosphere, discharges contaminants to ground or surface water, provides potable water supplies, or stores, transports or disposes of waste must have an Environmental Compliance Approval (ECA) before it can operate lawfully. Please consult with the Environmental Approvals Access and Service Integration Branch (EAASIB) to determine whether a new or amended ECA will be required for any proposed infrastructure.
- We recommend referring to the ministry's [environmental land use planning guides](#) to ensure that any potential land use conflicts are considered when planning for any infrastructure or facilities related to wastewater, pipelines, landfills or industrial uses.

Mitigation and Monitoring

- Contractors must be made aware of all environmental considerations so that all environmental standards and commitments for both construction and operation are met. Mitigation measures should be clearly referenced in the report and regularly monitored during the construction stage of the project. In addition, we encourage proponents to conduct post-construction monitoring to ensure all mitigation measures have been effective and are functioning properly.
- Design and construction reports and plans should be based on a best management approach that centres on the prevention of impacts, protection of the existing environment, and opportunities for rehabilitation and enhancement of any impacted areas.
- The proponent's construction and post-construction monitoring plans must be documented in the report, as outlined in Section A.2.5 and A.4.1 of the MEA Class EA parent document.

□ Consultation

- The report must demonstrate how the consultation provisions of the Class EA have been fulfilled, including documentation of all stakeholder consultation efforts undertaken during the planning process. This includes a discussion in the SR that identifies concerns that were raised and **describes how they have been addressed by the proponent** throughout the planning process. The Class EA also directs proponents to include copies of comments submitted on the project by interested stakeholders, and the proponent's responses to these comments.

□ Class EA Process

- The report should provide clear and complete documentation of the planning process in order to allow for transparency in decision-making.
- If this project is a Master Plan: there are several different approaches that can be used to conduct a Master Plan, examples of which are outlined in Appendix 4 of the Class EA. The Master Plan should clearly indicate the selected approach for conducting the plan, by identifying whether the levels of assessment, consultation and documentation are sufficient to fulfill the requirements for Schedule B or C projects. Please note that any Schedule B or C projects identified in the plan would be subject to Part II Order Requests under the *Environmental Assessment Act*, although the plan itself would not be.
- The report must demonstrate how the consultation provisions of the Class EA have been fulfilled, including documentation of all stakeholder consultation efforts undertaken during the planning process. This includes a discussion in the report that identifies concerns that were raised and **describes how they have been addressed by the proponent** throughout the planning process. The Class EA also directs proponents to include copies of comments submitted on the project by interested stakeholders, and the proponent's responses to these comments.
- The Class EA requires the consideration of the effects of each alternative on all aspects of the environment. The report should include a level of detail (e.g. hydrogeological investigations, terrestrial and aquatic assessments) such that all potential impacts can be identified, and appropriate mitigation measures can be developed. Any supporting studies conducted during the Class EA process should be referenced and included as part of the report.
- Please include in the report a list of all subsequent permits or approvals that may be required for the implementation of the preferred alternative, including but not limited to, MECP's PTTW, EASR Registrations and ECAs, conservation authority permits, species at risk permits, and approvals under the *Impact Assessment Act*, 2019.
- Ministry guidelines and other information related to the issues above are available at <http://www.ontario.ca/environment-and-energy/environment-and-energy>. We encourage you to review all the available guides and to reference any relevant information in the report.

A PROPONENT'S INTRODUCTION TO THE DELEGATION OF PROCEDURAL ASPECTS OF CONSULTATION WITH ABORIGINAL COMMUNITIES

Definitions

The following definitions are specific to this document and may not apply in other contexts:

Aboriginal communities – the First Nation or Métis communities identified by the Crown for the purpose of consultation.

Consultation – the Crown's legal obligation to consult when the Crown has knowledge of an established or asserted Aboriginal or treaty right and contemplates conduct that might adversely impact that right. This is the type of consultation required pursuant to s. 35 of the *Constitution Act, 1982*. Note that this definition does not include consultation with Aboriginal communities for other reasons, such as regulatory requirements.

Crown – the Ontario Crown, acting through a particular ministry or ministries.

Procedural aspects of consultation – those portions of consultation related to the process of consultation, such as notifying an Aboriginal community about a project, providing information about the potential impacts of a project, responding to concerns raised by an Aboriginal community and proposing changes to the project to avoid negative impacts.

Proponent – the person or entity that wants to undertake a project and requires an Ontario Crown decision or approval for the project.

I. Purpose

The Crown has a legal duty to consult Aboriginal communities when it has knowledge of an existing or asserted Aboriginal or treaty right and contemplates conduct that may adversely impact that right. In outlining a framework for the duty to consult, the Supreme Court of Canada has stated that the Crown may delegate procedural aspects of consultation to third parties. This document provides general information about the Ontario Crown's approach to delegation of the procedural aspects of consultation to proponents.

This document is not intended to instruct a proponent about an individual project, and it does not constitute legal advice.

II. Why is it Necessary to Consult with Aboriginal Communities?

The objective of the modern law of Aboriginal and treaty rights is the *reconciliation* of Aboriginal peoples and non-Aboriginal peoples and their respective rights, claims and interests. Consultation is an important component of the reconciliation process.

The Crown has a legal duty to consult Aboriginal communities when it has knowledge of an existing or asserted Aboriginal or treaty right and contemplates conduct that might adversely impact that right. For example, the Crown's duty to consult is triggered when it considers issuing a permit, authorization or approval for a project which has the potential to adversely impact an Aboriginal right, such as the right to hunt, fish, or trap in a particular area.

The scope of consultation required in particular circumstances ranges across a spectrum depending on both the nature of the asserted or established right and the seriousness of the potential adverse impacts on that right.

Depending on the particular circumstances, the Crown may also need to take steps to accommodate the potentially impacted Aboriginal or treaty right. For example, the Crown may be required to avoid or minimize the potential adverse impacts of the project.

III. The Crown's Role and Responsibilities in the Delegated Consultation Process

The Crown has the responsibility for ensuring that the duty to consult, and accommodate where appropriate, is met. However, the Crown may delegate the procedural aspects of consultation to a proponent.

There are different ways in which the Crown may delegate the procedural aspects of consultation to a proponent, including through a letter, a memorandum of understanding, legislation, regulation, policy and codes of practice.

If the Crown decides to delegate procedural aspects of consultation, the Crown will generally:

- Ensure that the delegation of procedural aspects of consultation and the responsibilities of the proponent are clearly communicated to the proponent;
- Identify which Aboriginal communities must be consulted;
- Provide contact information for the Aboriginal communities;
- Revise, as necessary, the list of Aboriginal communities to be consulted as new information becomes available and is assessed by the Crown;
- Assess the scope of consultation owed to the Aboriginal communities;
- Maintain appropriate oversight of the actions taken by the proponent in fulfilling the procedural aspects of consultation;
- Assess the adequacy of consultation that is undertaken and any accommodation that may be required;
- Provide a contact within any responsible ministry in case issues arise that require direction from the Crown; and
- Participate in the consultation process as necessary and as determined by the Crown.

IV. The Proponent's Role and Responsibilities in the Delegated Consultation Process

Where aspects of the consultation process have been delegated to a proponent, the Crown, in meeting its duty to consult, will rely on the proponent's consultation activities and documentation of those activities. The consultation process informs the Crown's decision of whether or not to approve a proposed project or activity.

A proponent's role and responsibilities will vary depending on a variety of factors including the extent of consultation required in the circumstance and the procedural aspects of consultation the Crown has delegated to it. Proponents are often in a better position than the Crown to discuss a project and its potential impacts with Aboriginal communities and to determine ways to avoid or minimize the adverse impacts of a project.

A proponent can raise issues or questions with the Crown at any time during the consultation process. If issues or concerns arise during the consultation that cannot be addressed by the proponent, the proponent should contact the Crown.

a) What might a proponent be required to do in carrying out the procedural aspects of consultation?

Where the Crown delegates procedural aspects of consultation, it is often the proponent's responsibility to provide notice of the proposed project to the identified Aboriginal communities. The notice should indicate that the Crown has delegated the procedural aspects of consultation to the proponent and should include the following information:

- a description of the proposed project or activity;
- mapping;
- proposed timelines;
- details regarding anticipated environmental and other impacts;
- details regarding opportunities to comment; and
- any changes to the proposed project that have been made for seasonal conditions or other factors, where relevant.

Proponents should provide enough information and time to allow Aboriginal communities to provide meaningful feedback regarding the potential impacts of the project. Depending on the nature of consultation required for a project, a proponent also may be required to:

- provide the Crown with copies of any consultation plans prepared and an opportunity to review and comment;
- ensure that any necessary follow-up discussions with Aboriginal communities take place in a timely manner, including to confirm receipt of information, share and update information and to address questions or concerns that may arise;
- as appropriate, discuss with Aboriginal communities potential mitigation measures and/or changes to the project in response to concerns raised by Aboriginal communities;
- use language that is accessible and not overly technical, and translate material into Aboriginal languages where requested or appropriate;
- bear the reasonable costs associated with the consultation process such as, but not limited to, meeting hall rental, meal costs, document translation(s), or to address technical & capacity issues;
- provide the Crown with all the details about potential impacts on established or asserted Aboriginal or treaty rights, how these concerns have been considered and addressed by the proponent and the Aboriginal communities and any steps taken to mitigate the potential impacts;
- provide the Crown with complete and accurate documentation from these meetings and communications; and
- notify the Crown immediately if an Aboriginal community not identified by the Crown approaches the proponent seeking consultation opportunities.

b) What documentation and reporting does the Crown need from the proponent?

Proponents should keep records of all communications with the Aboriginal communities involved in the consultation process and any information provided to these Aboriginal communities.

As the Crown is required to assess the adequacy of consultation, it needs documentation to satisfy itself that the proponent has fulfilled the procedural aspects of consultation delegated to it. The documentation required would typically include:

- the date of meetings, the agendas, any materials distributed, those in attendance and copies of any minutes prepared;
- the description of the proposed project that was shared at the meeting;
- any and all concerns or other feedback provided by the communities;

- any information that was shared by a community in relation to its asserted or established Aboriginal or treaty rights and any potential adverse impacts of the proposed activity, approval or disposition on such rights;
- any proposed project changes or mitigation measures that were discussed, and feedback from Aboriginal communities about the proposed changes and measures;
- any commitments made by the proponent in response to any concerns raised, and feedback from Aboriginal communities on those commitments;
- copies of correspondence to or from Aboriginal communities, and any materials distributed electronically or by mail;
- information regarding any financial assistance provided by the proponent to enable participation by Aboriginal communities in the consultation;
- periodic consultation progress reports or copies of meeting notes if requested by the Crown;
- a summary of how the delegated aspects of consultation were carried out and the results; and
- a summary of issues raised by the Aboriginal communities, how the issues were addressed and any outstanding issues.

In certain circumstances, the Crown may share and discuss the proponent's consultation record with an Aboriginal community to ensure that it is an accurate reflection of the consultation process.

c) Will the Crown require a proponent to provide information about its commercial arrangements with Aboriginal communities?

The Crown may require a proponent to share information about aspects of commercial arrangements between the proponent and Aboriginal communities where the arrangements:

- include elements that are directed at mitigating or otherwise addressing impacts of the project;
- include securing an Aboriginal community's support for the project; or
- may potentially affect the obligations of the Crown to the Aboriginal communities.

The proponent should make every reasonable effort to exempt the Crown from confidentiality provisions in commercial arrangements with Aboriginal communities to the extent necessary to allow this information to be shared with the Crown.

The Crown cannot guarantee that information shared with the Crown will remain confidential. Confidential commercial information should not be provided to the Crown as part of the consultation record if it is not relevant to the duty to consult or otherwise required to be submitted to the Crown as part of the regulatory process.

V. What are the Roles and Responsibilities of Aboriginal Communities' in the Consultation Process?

Like the Crown, Aboriginal communities are expected to engage in consultation in good faith. This includes:

- responding to the consultation notice;
- engaging in the proposed consultation process;
- providing relevant documentation;
- clearly articulating the potential impacts of the proposed project on Aboriginal or treaty rights; and
- discussing ways to mitigate any adverse impacts.

Some Aboriginal communities have developed tools, such as consultation protocols, policies or processes that provide guidance on how they would prefer to be consulted. Although not legally binding, proponents are encouraged to respect these community processes where it is reasonable to do so. Please note that there is no obligation for a proponent to pay a fee to an Aboriginal community in order to enter into a consultation process.

To ensure that the Crown is aware of existing community consultation protocols, proponents should contact the relevant Crown ministry when presented with a consultation protocol by an Aboriginal community or anyone purporting to be a representative of an Aboriginal community.

VI. What if More Than One Provincial Crown Ministry is Involved in Approving a Proponent's Project?

Depending on the project and the required permits or approvals, one or more ministries may delegate procedural aspects of the Crown's duty to consult to the proponent. The proponent may contact individual ministries for guidance related to the delegation of procedural aspects of consultation for ministry-specific permits/approvals required for the project in question. Proponents are encouraged to seek input from all involved Crown ministries sooner rather than later.

From: Diana Friesen <diana.friesen@oakville.ca>
Sent: Tuesday, February 16, 2021 11:05 AM
To: 'Matt Howatt' <mhowatt@hrca.on.ca>; Janusz Czuj <Janusz.Czuj@ghd.com>
Cc: Sarah Irwin <Sarah.Irwin@ghd.com>; Kristina Parker <kristina.parker@oakville.ca>
Subject: RE: 11211778 Joshua's Creek Reports - Please review

Thanks for the update Matt and the comments provided. We will review the comments below and the additional comments when received and then we will let you know if we wish to discuss in more detail.

Diana

Diana Friesen
Water Resources Technologist
Transportation and Engineering
Town of Oakville | 905-845-6601, ext.3904 | www.oakville.ca

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From: Matt Howatt [<mailto:mhowatt@hrca.on.ca>]
Sent: February 12, 2021 11:32 AM
To: Diana Friesen <diana.friesen@oakville.ca>; Than Czuj <janusz.czuj@ghd.com>
Cc: Sarah Irwin <Sarah.Irwin@ghd.com>; Kristina Parker <kristina.parker@oakville.ca>
Subject: RE: 11211778 Joshua's Creek Reports - Please review

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Good morning Diana,

Our formal letter is still with senior staff for review. As previously noted, in addition to reviewing and commenting on flood risk mitigation, we're reviewing the new modelling from our regulation/flood hazard

perspective. I hope to have our formal letter out to you next week that will contain the comments below regarding the Town study as well as specific comments that would need to be addressed to use the modelling for a CH regulation/flood hazard mapping update.

Perhaps we can chat further next week? If you have any availability on Tuesday or Wednesday, please let me know.

In the meantime, I'm providing our comments regarding Progress Report 1 and the technical memorandum below.

Based on our review, CH staff is supportive of the flood characterization work in the technical memorandum and the mitigation measures being considered in Progress Report 1. The mitigation measures would likely mitigate flood risks and meet CH's regulatory requirements, subject to further technical review at the detailed design and CH permit application stage. We request that the following detailed comments please be considered and/or addressed by the study team:

1. Alternative 2 & 4 (Crossing upgrades) – A CH permit will be required for upgrading existing structures to improve conveyance in the Regulated area, at which time a detailed submission and review would take place.
2. Alternative 3 (Berms & Channels) – From a risk perspective, staff are generally supportive of this alternative however further detail will be required to assess their hydraulic efficacy and impacts. Any grading within the floodplain must demonstrate no increased risk and may require compensation to flood conveyance or flood storage. These alternatives would not likely result in refinements to CH's Approximate Regulation Limit mapping (i.e. may not reduce the extent of the flood hazard limit) as flood control/mitigation structures (i.e. berms) cannot be relied upon when determining the regulated floodplain limit as per Ministry of Natural Resources & Forestry technical flood guidelines.
3. Staff recommend additional 'Inundation Boundaries' figures be included that show how flooding impacts are reduced with each alternative on its own, all alternatives together, and a combination of the preferred alternative.
4. The Mitigation Study should include conceptual designs of the alternatives particularly how the channel of the Constance Drive Berm will tie in the Joshua's Creek channel and cross sections of the Joshua's Creek corridor with the raised pathway/berm.
5. Additional information is recommended to characterize existing natural environment conditions in the study area. This information would provide a more comprehensive understanding of the study area and inform mitigation measures. We recommend updating Progress Report 1 as follows:
 - a. Include discussion of the study area in relation to Halton Region's Natural Heritage System - Natural Environment (Significant Woodland and Wildlife Habitat)
 - b. Include geology, physiography and soil characterization of the study area
 - c. Include results of the bat maternity roost surveys and all fieldsheets (Section 4.2.3.5.1 Bat Maternity Roost Assessment, page 17)
 - d. Include locations of candidate bat maternity roost sites on a figure (Section 4.2.3.5.1 Bat Maternity Roost Assessment, page 17) and protocol used to assess bat maternity roosts

(Section 4.2.3.5.1 Bat Maternity Roost Assessment, page 17)

- e. Include fish community data (Section 4.2.3.6 Fish and Aquatic Habitat, page 18)
 - f. Provide locations of CH's fish records on a figure (Section 4.2.3.6 Fish and Aquatic Habitat, page 18)
 - g. Include rarity of vegetation communities (Section 4.2.3.7.1 Ecological Land Classification and Flora, page 18).
 - h. Include local rarity of species as per the Halton Natural Area Inventory (2006) and note if locally rare species are present (Section 4.2.3.7.2 Flora, page 20)
 - i. Include discussion on rarity and disturbance-tolerance of the species observed during the surveys, not just what is expected for the study area (Section 4.2.3.7.3 Incidental Wildlife, page 20).
6. Detailed aquatic habitat characterization field work may be required at the detailed design phase depending on the preferred alternative to quantify specific aquatic impacts and mitigation measures.
 7. Include discussion on efforts to preserve and adequately compensate for tree canopy coverage loss in keeping with the Town of Oakville's tree planting, maintenance and preservation of trees on or affecting public property by-law.
 8. Staff look forward to reviewing a comprehensive description of the analysis and mitigation measures to be undertaken on the preferred alternatives. As noted in our April 27, 2020 email:
 - a. Impacts of the preferred alternative(s) on the natural heritage features and functions, should be identified and assessed including:
 - i. Direct on-site effects of the proposed project, including direct removals, habitat disruption, sediment transport, increased noise and vibration during construction, fragmentation, encroachment or alteration of the significant natural features, altered hydrology and drainage, and anticipated tree removal;
 - ii. Introduction of non-native species;
 - iii. Effects on the ecological characteristics of the entire natural area (e.g. loss of habitat, edge effect, change in habitat);
 - iv. Short-term and long-term effects (impacts both during construction and after completion, maintenance); and
 - v. Secondary effects, including changes to the aesthetic qualities or educational value of the area, obstruction of greenway connections, and effects on adjacent natural areas.
 - b. The report should also include a mitigation and monitoring section. The mitigation section should include measures to be taken to avoid and mitigate negative impacts on the natural heritage features and functions including:
 - i. Feasible measures necessary to protect, maintain, or improve the identified ecological functions of the natural heritage features both during construction and after completion;

- ii. Feasible measures for the preservation of significant vegetation communities, special habitats, and specimen trees;
 - iii. Timing restrictions, buffer setbacks, invasive species management/control, and potential compensation requirements;
 - iv. Monitoring requirements for pre-during and post construction activities (as required); and
 - v. Options for ongoing rehabilitation, protection, management, and enhancement of the natural heritage features, as necessary.
9. Recommend consulting with the Ministry of Environment, Conservation and Parks (MECP) regarding Endangered or Threatened species in the study area to ensure adequate surveys have been completed and any MECP requirements are met.

Thank you and hope you have a great long weekend,
Matt

Matt Howatt

Team Lead, Regional Infrastructure Team / Environmental Planner

Conservation Halton

2596 Britannia Road West, Burlington, ON L7P 0G3

Office 905.336.1158 ext. 2311 | Mobile 905.208.1803 | Fax 905.336.6684 | mhowatt@hrca.on.ca

conservationhalton.ca

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From: Matt Howatt

Sent: February 3, 2021 3:50 PM

To: Diana Friesen <diana.friesen@oakville.ca>; Janusz Czuj <janusz.czuj@ghd.com>

Cc: Sarah Irwin <Sarah.Irwin@ghd.com>; Kristina Parker <kristina.parker@oakville.ca>

Subject: RE: 11211778 Joshua's Creek Reports - Please review

Hi Diana,

Thank you for your email, I hope you're doing well too!

Thanks also for your patience with our comments on the Progress Report and Technical Modelling Memo.

Our technical review is complete and I have a draft of our response letter in for internal review. One of the major pieces that has emerged for CH to grapple with is how and when to use the new modelling from this flood risk study to update our regulation mapping. I recognize this piece is outside the scope of the Town and GHD's work but I'd like to some direction on it from CH's end as we progress through the study and now that Virtual PIC 1 has kicked off.

My goal is to have the response letter to you by next week and I'll keep you updated on our

progress.

If you have any questions or concerns in the meantime, please let me know.

Thanks,
Matt

Matt Howatt

Team Lead, Regional Infrastructure Team / Environmental Planner

Conservation Halton

2596 Britannia Road West, Burlington, ON L7P 0G3

Office 905.336.1158 ext. 2311 | Mobile 905.208.1803 | Fax 905.336.6684 | mhowatt@hrca.on.ca

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

Sent: February 1, 2021 4:38 PM

To: Matt Howatt <mhowatt@hrca.on.ca>; Janusz Czuj <janusz.czuj@ghd.com>

Cc: Sarah Irwin <Sarah.Irwin@ghd.com>; Kristina Parker <kristina.parker@oakville.ca>

Subject: RE: 11211778 Joshua's Creek Reports - Please review

Hi Matt,

I hope you're doing well and coping ok with lockdown☺

Just hoping you can provide us an update on CH's comments on the progress report.

Thanks

From: Matt Howatt [<mailto:mhowatt@hrca.on.ca>]

Sent: Tuesday, January 12, 2021 5:11 PM

To: Janusz Czuj <Janusz.Czuj@ghd.com>

Cc: Sarah Irwin <Sarah.Irwin@ghd.com>; Kristina Parker <kristina.parker@oakville.ca>; Diana Friesen <diana.friesen@oakville.ca>

Subject: RE: 11211778 Joshua's Creek Reports - Please review

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Hi again Janusz,

My apologies.

The suggested mark up for Slide 16 should read:

This alternative may not result in changes to Conservation Halton's regulatory floodplain mapping for the study area.

Thank you,
Matt

From: Matt Howatt
Sent: January 12, 2021 5:03 PM
To: Janusz Czuj <Janusz.Czuj@ghd.com>
Cc: Sarah Irwin <Sarah.Irwin@ghd.com>; Kristina Parker <kristina.parker@oakville.ca>; Diana Friesen <diana.friesen@oakville.ca>
Subject: RE: 11211778 Joshua's Creek Reports - Please review

Hi Janusz,

Thanks for your follow up. I just prepared the attached so for back up, please find Slides 4, 5 and 16 attached.

For Slides 5 and 16, I thought some additional context from CH would be helpful. If there are any concerns or questions with the proposed mark ups, please let me know and I'd be happy to chat further,

Thank you,
Matt

From: Janusz Czuj <Janusz.Czuj@ghd.com>
Sent: January 12, 2021 4:56 PM
To: Matt Howatt <mhowatt@hrca.on.ca>
Cc: Sarah Irwin <Sarah.Irwin@ghd.com>; Kristina Parker <kristina.parker@oakville.ca>; Diana Friesen <diana.friesen@oakville.ca>
Subject: RE: 11211778 Joshua's Creek Reports - Please review

Hi Matt

Please disregard my earlier message. I accessed the files.

Thanks

Janusz

From: Janusz Czuj
Sent: Tuesday, January 12, 2021 4:26 PM
To: Matt Howatt <mhowatt@hrca.on.ca>

Cc: Sarah Irwin <Sarah.Irwin@ghd.com>; Kristina Parker <kristina.parker@oakville.ca>; Diana Friesen <diana.friesen@oakville.ca>

Subject: RE: 11211778 Joshua's Creek Reports - Please review

Hello Matt

I cannot open the link below. Could you please just send marked up slides 4, 5 and 16?

Thanks

Janusz Czuj
Senior Engineer

GHD

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455 Phillip Street Unit #100 Waterloo Ontario N2L 3X2 Canada

D 519 340 4296 M 226-750-1247 E janusz.czuj@ghd.com

From: Matt Howatt <mhowatt@hrca.on.ca>

Sent: Monday, January 11, 2021 7:16 AM

To: Diana Friesen <diana.friesen@oakville.ca>; Janusz Czuj <Janusz.Czuj@ghd.com>

Cc: Sarah Irwin <Sarah.Irwin@ghd.com>; Kristina Parker <kristina.parker@oakville.ca>

Subject: RE: 11211778 Joshua's Creek Reports - Please review

Good morning Diana and Happy New Year,

Thanks for the opportunity to review and provide feedback on the PIC1 slides.

I've added some brief wording suggestions to Slides 4, 5 and 16 in the version saved here:

https://chilton-my.sharepoint.com/:f:/r/personal/mhowatt_hrca_on_ca/Documents/PIC1?csf=1&web=1&e=ulzr8k

I also sent you and Janusz a direct link/share.

Please let me know if you have any questions or concerns. I'll follow up with our letter on the GHD submission of the progress report and modelling memo shortly.

Thanks again,
Matt

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

Sent: January 5, 2021 11:35 AM

To: Matt Howatt <mhowatt@hrca.on.ca>; 'Janusz Czuj' <Janusz.Czuj@ghd.com>

Cc: Sarah Irwin <Sarah.Irwin@ghd.com>; Kristina Parker <kristina.parker@oakville.ca>

Subject: RE: 11211778 Joshua's Creek Reports - Please review

Hi Matt,

Happy new year

Here is the link to the draft PIC Boards. <https://oakville.box.com/s/0fnvl8brkfsqzfdlrbfbicif9ydy2yi>
Town staff have not yet commented on the boards, but will be sending input to ghd shortly.

Tentatively we plan to post the PIC boards from Jan 14 to Feb 14th. This means getting our notices finalized this week.

If you have comments on the PIC board please let us know by end of week, if possible. Monday at the latest.

In regards to notice distribution, we plan to provide notice to all those located within the limits of the updated Regional storm floodplain.

Much appreciated.

From: Matt Howatt [<mailto:mhowatt@hrca.on.ca>]

Sent: Wednesday, December 23, 2020 3:56 PM

To: Diana Friesen <diana.friesen@oakville.ca>; 'Janusz Czuj' <Janusz.Czuj@ghd.com>

Cc: Sarah Irwin <Sarah.Irwin@ghd.com>; Kristina Parker <kristina.parker@oakville.ca>

Subject: RE: 11211778 Joshua's Creek Reports - Please review

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Thanks for your response and confirmation, Diana.

We'll be in touch in the first part of January.

Happy Holidays!

Matt

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

Sent: December 18, 2020 9:31 AM

To: Matt Howatt <mhowatt@hrca.on.ca>; 'Janusz Czuj' <Janusz.Czuj@ghd.com>

Cc: Sarah Irwin <Sarah.Irwin@ghd.com>; Kristina Parker <kristina.parker@oakville.ca>

Subject: RE: 11211778 Joshua's Creek Reports - Please review

Thanks for the update Matt,

The PIC material will likely go 3 or 4th week in January.

Have a happy holiday. We can touch base in the new year.

Diana

From: Matt Howatt [<mailto:mhowatt@hrca.on.ca>]
Sent: Thursday, December 17, 2020 10:27 PM
To: Diana Friesen <diana.friesen@oakville.ca>; 'Janusz Czuj' <Janusz.Czuj@ghd.com>
Cc: Sarah Irwin <Sarah.Irwin@ghd.com>
Subject: RE: 11211778 Joshua's Creek Reports - Please review

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Hi Diana and Janusz,

My apologies for the delay in following up on our December 1 meeting with CH's comments regarding Progress Report 1 and the 2D Hydraulic Modelling Memo.

Our review is nearly complete and there are no red flags thus far from the flood mitigation opportunities study perspective. We are still reviewing the 2D hydraulic modelling and discussing how we move forward from a regulatory mapping perspective. This will require further internal discussion on our end and we will work to provide comments in January in advance of PIC 1.

Are there any updates on the timing of PIC 1 since our last meeting?

I'm off tomorrow but am in the office Monday and Tuesday next week if you'd like to chat.

Thank you,
Matt

Matt Howatt
</

Diana Friesen
Water Resources Technologist
Development Services
Town of Oakville | 905-845-6601, ext.3904 | www.oakville.ca

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From: Eastern Region Crossing
To: [Diana Friesen](#)
Subject: RE: Joshua's Creek Flood Mitigation Opportunities Study - Notice of Virtual Public Information Centre No. 1
Date: Monday, February 01, 2021 1:13:28 PM
Attachments: [image001.jpg](#)
[Notice of PIC_For Stakeholders.pdf](#)

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Thank you for your notice

Enbridge Pipelines Inc. owns and operates several high pressure crude oil pipelines in the general area as per the aerial screen shot below.



Enbridge is regulated by the Canada Energy Regulator (CER) Damage Prevention Regulations.

Ground disturbance activities in the prescribed area (CER) which extends 30m from each side of the centerline of the pipeline requires notification to Enbridge by contacting Ontario One Call at 1 800 400 2255 or ontarioonecall.com

All proposed facilities crossing the pipeline right-of-way require approval from Enbridge in the form of a crossing agreement between Enbridge and the facility owner.

Regards

Maria

Maria Bradley

Sr. Analyst, Lands & ROW

ENBRIDGE PIPELINES INC.

Crossings TEL: 1-800-668-2951
TEL: 519 333 6785| FAX: 519 339 0510
1086 Modeland Road, Building 1050 1st Flr, Sarnia, ON N7S 6L2

enbridge.com.

Safety. Integrity Respect.

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

Sent: Friday, January 29, 2021 2:33 PM

To: Eastern Region Crossing <est.reg.crossing@enbridge.com>

Subject: [External] FW: Joshua's Creek Flood Mitigation Opportunities Study - Notice of Virtual Public Information Centre No. 1

EXTERNAL: PLEASE PROCEED WITH CAUTION.

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Diana Friesen

Water Resources Technologist

Development Services

Town of Oakville | 905-845-6601, ext.3904 | [http://secure-](http://secure-web.cisco.com/1h19QCmXqOMyyVvMxhKnMe1R7KpZSpNIWYjnh6wKy4gC67m9mXp7Rb9zQPbH6PKodl07tlyg-0qpeSOW_rqRVNYAg6uY3om1h5DnxSYf7zZjs46UUOaawmTAM9bXjSHS1tkC-63H-Lu2OWQ4Pwr7QS4Dabi0KlhlmlO6FaNdWYRtx6rqGI_8vWr2our1di4vbn3tcyTAXKcBqD97KhDNAuZBp2zpdAgaX-HnlKtl-oyRbuTC8GSvZ1d0RqLYFUOMcRkGeEWl4Zed_yQahH4eVgkyrsXQjo619rHTTnyvz0GDholAQa7c4t_UKixhHQQE/http%3A%2F%2Fwww.oakville.ca)

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From: Diana Friesen

Sent: Friday, January 29, 2021 2:31 PM

Cc: 'Janusz Czuj' <Janusz.Czuj@ghd.com>; Kristina Parker <kristina.parker@oakville.ca>

Subject: Joshua's Creek Flood Mitigation Opportunities Study - Notice of Virtual Public Information Centre No. 1

FYI

The **Joshua's Creek Flood Mitigation Opportunities Study** is an on-going Municipal Class Environmental Assessment (Class EA) being managed by the town's Community Infrastructure Commission. 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.

This is the first of two public consultations for the flood mitigation opportunities study. Town staff are seeking feedback on the possible alternative mitigation measures, evaluation criteria, potential environmental effects, and any other concerns.

Due to COVID 19 restriction, public consultation for this study will be carried out using a virtual format. Study material has been made available on the town's website at the following link:

https://secure-web.cisco.com/1w0txtd7B5ebd1-2JAIWngPnWGsm73JnGdRzJSwBd-JFtSi1MihX4xrduKQ79Rqq0tWYfl-g_kpVTsNcDWB0H_pyoxHC6W7h62tMZ6Ci0N3TaQ5-cSllktj9dKqP_3Ob9nSyiQyK-jh9reMLAC49quMp0jydJ8utqVsDOVw_6IA0vYcMDglVOPg8mh6ikWWEsaU9hhOmzH34wp56MEm_FeUWjOXX4a8lXMSgj2unEoso0yPZtxpNuY7-XQbdK-Pj-nSftL_NVQHJZPyHvoxc0jllaP5WMGIRHqA5T5TIKygX6VthKpi_Y9fWcqpGjYH0d/https%3A%2F%2Fwww.oakville.ca%2Fenvironment%2Fflood-mitigation-joshuas-creek.html

Posted materials include background information on flood-prone sites, updates from investigations and preliminary alternatives for flood mitigation. Comments or questions can be submitted via email, mail or phone call until **March 4th 2021**.

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

Best Regards,

From: Diana Friesen
To: [Janusz Czuj](#)
Cc: [Kristina Parker](#)
Subject: FW: Joshua Creek Flood Mitigation Opportunities Study - Halton Region Water and Wastewater Planning Comments
Date: Wednesday, February 24, 2021 1:17:18 PM
Attachments: [Notice of PIC For Stakeholders.pdf](#)

Diana Friesen
Water Resources Technologist
Transportation and Engineering
Town of Oakville | 905-845-6601, ext.3904 | www.oakville.ca

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From: Pasquale, Christopher [mailto:Christopher.Pasquale@halton.ca]
Sent: February 24, 2021 1:02 PM
To: Diana Friesen <diana.friesen@oakville.ca>
Cc: Connell, Kate <Kate.Connell@halton.ca>; Lockwood, Madison <Madison.Lockwood@halton.ca>
Subject: Joshua Creek Flood Mitigation Opportunities Study - Halton Region Water and Wastewater Planning Comments

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Hi Diana,

I hope all is well and you're working safely!

From a water and wastewater infrastructure planning and policy perspective, I do not have any comments/concerns related to the attached MCEA Study.

My review did not consider existing water and wastewater infrastructure within the Study Area. If this or related information is required moving forward as a part of this MCEA Study, please send me a follow-up.

Be there any questions/concerns, please let me know.

Thanks,
Chris Pasquale

Christopher Pasquale

Project Manager II

Infrastructure Planning & Policy

Public Works

Halton Region

905-825-6000, ext. 3521 | 1-866-442-5866

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From: SecondaryLandUse@HydroOne.com
To: [Janusz Czuj](#)
Cc: [Diana.Friesen@oakville.ca](#); [SecondaryLandUse@HydroOne.com](#)
Subject: Hydro One Response: Joshua Creek Flood Mitigation Opportunities Study
Date: Tuesday, March 02, 2021 1:37:40 PM
Attachments: [20210302-NoticeOfPIC1-Joshua Creek Flood Mitigation Opportunities Study.pdf](#)

You don't often get email from secondarylanduse@hydroone.com. [Learn why this is important](#) [Feedback](#)

Please see the attached for Hydro One's Response.

Hydro One Networks Inc
[SecondaryLandUse@HydroOne.com](#)

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Hydro One Networks Inc
483 Bay St
Toronto, ON

March 02, 2021

Re: Joshua Creek Flood Mitigation Opportunities Study

Attention:
Janusz Czuj, P.Eng.
Project Manager
GHD

Thank you for sending us notification regarding (Joshua Creek Flood Mitigation Opportunities Study). In our preliminary assessment, we have confirmed that Hydro One has existing high voltage Transmission facilities within your study area. At this time we do not have sufficient information to comment on the potential resulting impacts that your project may have on our infrastructure. Hydro One can allow storm water management within our right of way but can not approve continuous retention. We must stay informed as more information becomes available so that we can advise if any of the alternative solutions present actual conflicts with our assets, and if so; what resulting measures and costs could be incurred by the proponent. Note that this response does not constitute approval for your plans and is being sent to you as a courtesy to inform you that we must continue to be consulted on your project.

In addition to the existing infrastructure mentioned above, the applicable transmission corridor may have provisions for future lines or already contain secondary land uses (e.g., pipelines, watermains, parking). Please take this into consideration in your planning.

Also, we would like to bring to your attention that should (Joshua Creek Flood Mitigation Opportunities Study) result in a Hydro One station expansion or transmission line replacement and/or relocation, an Environmental Assessment (EA) will be required as described under the Class Environmental Assessment for Minor Transmission Facilities (Hydro One, 2016). This EA process would require a minimum of 6 months for a Class EA Screening Process (or up to 18 months if a Full Class EA were to be required) to be completed. Associated costs will be allocated and recovered from proponents in accordance with the Transmission System Code. If triggered, Hydro One will rely on studies completed as part of the EA you are current undertaking.

Consulting with Hydro One on such matters during your project's EA process is critical to avoiding conflicts where possible or, where not possible, to streamlining processes (e.g., ensuring study coverage of expansion/relocation areas within the current EA). Once in receipt of more specific project information regarding the potential for conflicts (e.g., siting, routing), Hydro One will be in a better position to communicate objections or not objections to alternatives proposed.

If possible at this stage, please formally confirm that Hydro One infrastructure and associated rights-of-way will be completely avoided, or if not possible, allocate appropriate lead-time in your project schedule to collaboratively work through potential conflicts with Hydro One, which ultimately could result in timelines identified above.

In planning, note that developments should not reduce line clearances or limit access to our infrastructure at any time. Any construction activities must maintain the electrical clearance from the transmission line conductors as specified in the Ontario Health and Safety Act for the respective line voltage.

Be advised that any changes to lot grading or drainage within, or in proximity to Hydro One transmission corridor lands must be controlled and directed away from the transmission corridor.

Please note that the proponent will be held responsible for all costs associated with modifications or relocations of Hydro One infrastructure that result from your project, as well as any added costs that may be incurred due to increased efforts to maintain said infrastructure.

We reiterate that this message does not constitute any form of approval for your project. Hydro One must be consulted during all stages of your project. Please ensure that all future communications about this and future project(s) are sent to us electronically to secondarylanduse@hydroone.com

Sent on behalf of,

***Secondary Land Use
Asset Optimization
Strategy & Integrated Planning
Hydro One Networks Inc.***

From: Matt Howatt
To: [Sarah Irwin](#); [Diana Friesen](#); [Janusz Czuj](#)
Subject: RE: Joshua's Creek PIC 2 Material and CH RTC
Date: Monday, November 08, 2021 8:30:07 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)

Good morning,

In addition to the comments provided by CH regarding the PIC 2 slides (McCormack/Friesen & Kelly, October 8, 2021), I'm writing to confirm that GHD's Response to CH Comments (June 18, 2021) based on our review of Progress Report 1 and the 2D Hydraulic Modelling addresses and resolves CH's outstanding comments of February 19, 2021.

I apologize for the delay in responding. We look forward to reviewing the Final Project Report at the next stage in the EA.

Please contact me with any question or to discuss further.

Thank you,
Matt

Matt Howatt

Manager, Policy & Special Initiatives

Conservation Halton

2596 Britannia Road West, Burlington, ON L7P 0G3

Office 905.336.1158 ext. 2311 | Mobile 905.208.1803 | Fax 905.336.6684 | mhowatt@hrca.on.ca

conservationhalton.ca



Click [here](#) to learn about Conservation Halton's new strategic plan.

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From: Sarah Irwin <Sarah.Irwin@ghd.com>

Sent: June 21, 2021 3:12 PM

To: Matt Howatt <mhowatt@hrca.on.ca>; Diana Friesen <diana.friesen@oakville.ca>

Cc: Janusz Czuj <janusz.czuj@ghd.com>

Subject: RE: Joshua's Creek PIC 2 Material and CH RTC

Hi Matt,

Thank you for your confirmation. We'll look forward to your comments.

Thanks,
Sarah

From: Matt Howatt <mhowatt@hrca.on.ca>

Sent: Monday, June 21, 2021 3:02 PM

To: Sarah Irwin <Sarah.Irwin@ghd.com>; Diana Friesen <diana.friesen@oakville.ca>

Cc: Janusz Czuj <Janusz.Czuj@ghd.com>

Subject: RE: Joshua's Creek PIC 2 Material and CH RTC

Hi Sarah,

This is to confirm receipt and download of the CH Comment Response, PIC 2 Draft Slides and 2D HEC-RAS modelling. We'll add these items to our review of Progress Report 2 already underway and will follow up with comments by mid-July, as discussed.

Thank you,
Matt

Matt Howatt

Manager, Policy & Special Initiatives

Conservation Halton

2596 Britannia Road West, Burlington, ON L7P 0G3

Office 905.336.1158 ext. 2311 | Mobile 905.208.1803 | Fax 905.336.6684 | mhowatt@hrca.on.ca

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From: Sarah Irwin <Sarah.Irwin@ghd.com>

Sent: June 18, 2021 6:23 PM

To: Diana Friesen <diana.friesen@oakville.ca>; Matt Howatt <mhowatt@hrca.on.ca>

Cc: Janusz Czuj <janusz.czuj@ghd.com>

Subject: Joshua's Creek PIC 2 Material and CH RTC

Hello Diana and Matt,

Please use the following link to download the draft PIC 2 panels for the Joshua's Creek Flood Mitigation Study presented at our meeting this week:

<https://ghd.sendthisfile.com/Tq6gVtimYcAQZN2FV8v6HVxd>

Matt, attached is our response to CH's comments provided February 19, 2021. Below is a link to download the revised 2D HEC-RAS model:

<https://ghd.sendthisfile.com/rMQjnyEdszgsMBbRjTbIhe0l>

Note: These files will expire in 6 days from the time this email was generated.

Please let us know if you have any questions. Hope you have a nice weekend.

Thank you,

Sarah Irwin, MEng

GHD

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455 Phillip St. Waterloo ON N2L 3X2 Canada

D 519 340 3904 E sarah.irwin@ghd.com

The Power of Commitment

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Appendix D

Natural Environment Photo Log



Photo 1 – Northwest-facing view of Fresh – Moist Sugar Maple – White Elm Deciduous Forest (FODM6-4) in the northern region of the Study Area, near the Ford Oakville Assembly Complex.



Photo 2 – Southwest-facing view looking upstream Joshua Creek as it dissects the FODM6-4 community presented in Photo 1.



Natural Environment Photographs



Photo 3 – Southwest-facing view of Dry – Fresh White Pine – Sugar Maple Mixed Forest (FOMM2-2). Photo taken from FCT (insurance agency) carpark.



Photo 4 – Mineral Cultural Meadow (CUM1) between Royal Windsor Drive and railway line. This community was maintained beneath the power lines.



Natural Environment Photographs



Photo 5 – North-facing view of Cattail Graminoid Mineral Meadow Marsh (MAMM1-2) located within the central region of the Study Area, southeast of the railway line.



Photo 6 – Joshua Creek flowing through the southern-most location of CUM1. The majority of the creekline in this community was dominated by European reed (*Phragmites australis* ssp. *australis*).





Photo 7 – The southern-most location of CUM1, showing patches of European buckthorn (*Rhamnus cathartica*) and other large shrubs. This community surrounded MAMM1-2.



Photo 8 – Upstream-facing view of Joshua Creek in the southern region of the Study Area. The creekline was bordered by FODM6-4.



Natural Environment Photographs



Photo 9 – Walking trail parallel to Joshua Creek in the southern region of the Study Area. Downstream-facing view of trail and creek within FODM6-4 community.



Photo 10 – Downstream-facing view of Joshua Creek, flowing through FODM6-4 community.



Natural Environment Photographs

Appendix E

Species Lists

Scientific Name	Common Name	Coefficient of Conservatism (CC)	Wetness Index	Weediness Index	Provincial Status (S-Rank)	Local Status Halton Source: Crims et al., 2006	Local Status Halton Source: Varga 2005	Carolinian Zone 7E-4 Local Status Source: Oldham 2017	Authority (L.) P. Beauvois
GYMNOSPERMS									
Cupressaceae									
<i>Taxa occidentalis</i>	Cypress Family	4	-3		S5	X	X	C	L
<i>Pinus strobus</i>	Eastern White Cedar								
Pinaceae									
<i>Pinus strobus</i>	Pine Family				SNA	X	XSR	IX	(L.) Karsten
<i>Pinus strobus</i>	Norway Spruce				SNA				Arnold
<i>Pinus strobus</i>	Austrian Pine	4	5	-1	S5	X	X	C	Miller
<i>Pinus strobus</i>	Eastern White Pine				SNA				
<i>Pinus strobus</i>	Virginia Pine								
DICOTYLEDONS									
Anacardiaceae									
<i>Rhus typhina</i>	Cashew Family	1	5		S5	X	X	C	L
<i>Rhus typhina</i>	Staghorn Sumac								
Apiaceae									
<i>Daucus carota</i>	Carrot Family				SNA	X	X	IC	L
<i>Daucus carota</i>	Wild Carrot				SNA	X	X	IC	L
<i>Daucus carota</i>	Wild Parsnip				SNA	X	X	IC	L
Apocynaceae									
<i>Asclepias syriaca</i>	Milkweed Family	0	5	-3	S5	X	X	C	L
<i>Asclepias syriaca</i>	Common Milkweed				SNA	X	X	IC	Kleppow
<i>Asclepias syriaca</i>	European Swallowwort								
Asteraceae									
<i>Aster sp.</i>	Aster Family				SNA	X	X	IC	(Hill) Bernh.
<i>Aster sp.</i>	Common Burdock				SNA	X	X	IC	L
<i>Aster sp.</i>	Wild Chicory				SNA	X	X	IC	L
<i>Aster sp.</i>	Canada Thistle				SNA	X	X	IC	(L.) Scop.
<i>Aster sp.</i>	Field Thistle								
<i>Aster sp.</i>	Black-Eyed Susan	0	3		S5	X	X	U	Farwell
<i>Aster sp.</i>	Goldenrod								
<i>Aster sp.</i>	New England Aster	2	-3		S5	X	X	C	(L.) G.L. Nesom
<i>Aster sp.</i>	Common Dandelion				SNA	X	X	IC	F.H. Wiggers
Balsaminaceae									
<i>Impatiens capensis</i>	Touch-Me-Not Family	4	-3		S5	X	X	C	Meerburgh
<i>Impatiens capensis</i>	Spotted Jewelweed				SNA	X	X	IC	Royle
<i>Impatiens capensis</i>	Purple Jewelweed								
Berberidaceae									
<i>Berberis vulgaris</i>	Berry Family	6	5		S5	X	X	U	(L.) Michx.
<i>Berberis vulgaris</i>	Blue Cohosh				S5	X	X	C	L
<i>Berberis vulgaris</i>	May-Apple								
Boraginaceae									
<i>Echium vulgare</i>	Borage Family	6	-2		S5	X	X	C	L
<i>Echium vulgare</i>	Virginia Waterleaf				SNA	X	X	IC	L
<i>Echium vulgare</i>	True Forget-Me-Not								
Brassicaceae									
<i>Brassica sp.</i>	Mustard Family				SNA	X	X	IC	(M. Bieb.) Cavara & Grande
<i>Brassica sp.</i>	Garlic Mustard	0	0	-3	SNA	X	X	IX	(L.) Heynhold
<i>Brassica sp.</i>	Mouse-Ear Cress	5	5	-1					
<i>Brassica sp.</i>	Cut-Leaved Toothwort	6	3		S5	X	X	U	(Michx.) O. Schwartz
Caprifoliaceae									
<i>Caprifolium sp.</i>	Honeysuckle Family				SNA	X	X	IC	L
<i>Caprifolium sp.</i>	Common Teasel								
Cornaceae									
<i>Cornus sp.</i>	Dogwood Family	2	3	-1	S5	X	X	C	Michaux
<i>Cornus sp.</i>	Red-Osier Dogwood								
Crassulaceae									
<i>Sedum sp.</i>	Stonecrop Family								
<i>Sedum sp.</i>	Stonecrop								
Euphorbiaceae									
<i>Euphorbia sp.</i>	Spurge Family								
<i>Euphorbia sp.</i>	Spurge								
Fabaceae									
<i>Faba sp.</i>	Legume Family				SNA	X	X	IU	(L.) Pallas
<i>Faba sp.</i>	Yellow Sweet-Clover				SNA	X	X	IC	(L.) Lassen
<i>Faba sp.</i>	Purple Crown-Vetch				SNA	X	X	IC	L
<i>Faba sp.</i>	Tufted Vetch				SNA	X	X	IC	L
Fagaceae									
<i>Fagus sp.</i>	Beech Family	6	3		S5	X	X	C	L
<i>Fagus sp.</i>	White Oak								
Geraniaceae									
<i>Geranium sp.</i>	Geranium Family	6	3		S5	X	X	C	L
<i>Geranium sp.</i>	Spotted Geranium								
Juglandaceae									
<i>Juglans sp.</i>	Walnut Family	5	3		S4?	X	X	C	L
<i>Juglans sp.</i>	Black Walnut								

Scientific Name	Common Name	Coefficient of Conservatism (CC)	Witness Index	Weediness Index	Provincial Status (S-Rank)	Local Status Halton Source: Crims et al., 2006	Local Status Halton Source: Varga 2005	Carolinian Zone 7E-4 Local Status Source: Oldham 2017	Authority
Lamiaceae	Mint Family								
<i>leucanthera edentata</i>	Ground-hlv		3	-2	SNA	X	X	IC	L
Lythraceae	Loosestrife Family								
<i>rumicarpa</i>	Purple Loosestrife		-5	-3	SNA	X	X	IC	L
Malvaceae	Mallow Family								
<i>americana</i>	Basswood	4	3		S5	X	X	C	L
Montiaceae	Water Chickweed Family								
<i>virginica</i>	Eastern Spring Beauty	5	3		S5	U	U	C	L
Oleaceae	Olive Family								
<i>virginiana</i>	Green Ash	3	-3		S4	X	X	C	Marshall
Papaveraceae	Poppy Family								
<i>virginiana</i>	Greater Celandine	5	5	-3	SNA	X	X	IU	L
<i>virginiana</i>	Bloodroot	5	4		S5	X	X	C	L
Plantaginaceae	Plantain Family								
<i>virginiana</i>	Common Plantain	3	3	-1	SNA	X	X	IC	L
Polygonaceae	Buckwheat Family								
<i>virginiana</i>	Curled Dock	0	0	-2	SNA	X	X	IC	L
Ranunculaceae	Buttercup Family								
<i>virginiana</i>	White Baneberry	6	5		S5	X	X	C	Elliott
<i>virginiana</i>	Wood Anemone	7	0		S5	X	X	U	L
<i>virginiana</i>	Early Meadow-Rue	5	2		S5	X	X	C	L
Rhamnaceae	Buckthorn Family								
<i>virginiana</i>	European Buckthorn	0	0	-3	SNA	X	X	IC	L
Rosaceae	Rose Family								
<i>virginiana</i>	Purple-Flowering Raspberry	3	5		S5	X	X	C	L
Salicaceae	Willow Family								
<i>virginiana</i>	Eastern Cottonwood	4	-1		S5	X	U	C	Bartram ex Marshall
<i>virginiana</i>	Trembling Aspen	2	0		S5	X	X	C	Michaux
<i>virginiana</i>	Willow								
Sapindaceae	Maple Family								
<i>virginiana</i>	Manitoba Maple	0	-2		S5	X	X	IC	L
<i>virginiana</i>	Red Maple	4	0		S5	X	X	C	L
<i>virginiana</i>	Sugar Maple	4	3		S5	X	X	C	Marshall
Scrophulariaceae	Figwort Family								
<i>virginiana</i>	Common Mullein	5	5	-2	SNA	X	X	IC	L
Umbelliferae	Elm Family								
<i>virginiana</i>	White Elm	3	-2		S5	X	X	C	L
Urticaceae	Nettle Family								
<i>virginiana</i>	Slender Stinging Nettle	2	-1		S5	X	X	C	(Alton) Selander
Vitaceae	Grape Family								
<i>virginiana</i>	Thicket Creeper	4	3		S5	X	X	C	(Knerr) Hitchcock
<i>virginiana</i>	Riverbank Grape	0	-2		S5	X	X	C	Michaux
MONOCOTYLEDONS									
Araceae	Arum Family								
<i>virginiana</i>	Jack-in-the-Pulpit	5	-2		S5	X	X	C	(L.) Schott
Asparagaceae	Asparagus Family								
<i>virginiana</i>	Wild Lily-Of-The-Valley	5	0		S5	X	X	C	Desf.
<i>virginiana</i>	Large False Solomon's Seal	4	3		S5	X	X	C	(L.) Link
Liliaceae	Lily Family								
<i>virginiana</i>	Yellow Trout Lily	5	5		S5	X	X	C	Ker Gawler
Melastomaceae	Bunchflower Family								
<i>virginiana</i>	White Trillium	5	5		S5	X	X	C	(Michx.) Salisbury
Poaceae	Grass Family								
<i>virginiana</i>	Lovegrass								
<i>virginiana</i>	Reed Canary Grass	0	-3		S5	X	X	C	L
<i>virginiana</i>	European Reed		-3		SNA	X	X	IC	(Cav.) Trinous ex Steudel
Typhaceae	Cattail Family								
<i>virginiana</i>	Broad-Leaved Cattail	3	-5		S5	X	X	C	L

EXPLANATION OF TERMINOLOGY

Co-efficient of Conservatism, Wetness & Weediness

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Co-efficient of Conservatism: This value, ranging from 0 (low) to 10 (high), is based on a species tolerance of disturbance and fidelity to a specific habitat integrity.
Wetness Index: This value, ranging from -1 (low) to -3 (high) quantifies the potential invasiveness of non-native plants. In combination with the percentage of non-native plants, it can be used as an indicator of disturbance.
Wetness Index: This value, ranging from -5 (obligate wetland) to 5 (upland) provides the probability of a species occurring in wetland or upland habitats.

- C (Facultative Wetland): usually occurs in wetlands, but occasionally found in non-wetlands (estimated 67-99% probability)
- FAC (Facultative): equally likely to occur in wetlands or non-wetlands (estimated 34-66% probability)
- CU (Facultative Upland): occasionally occurs in wetlands, but usually occurs in non-wetlands (estimated 1-33% probability)
- U (Upland): occurs almost never in wetlands under natural conditions (estimated <1% probability)

Further refinement of the Facultative categories are denoted by a "+", "-", or "x" to express exaggerated tendencies for those species. The "+", "-", denotes a greater estimated probability occurring in wetlands than species in the general indicator category, but a lesser probability than species occurring in the next higher category. The "x" denotes a lesser estimated probability of occurring in wetlands than species in the general indicator category, but a greater probability than species occurring in the next lower general category.

Each wetland category has been assigned a numerical value to facilitate the quantification of the wetness index. The wetland categories and their corresponding values are as follows:

- OBL : -5
- FACW+ : -4
- FACW : -3
- FACW- : -2
- FAC+ : -1
- FAC : 0
- FAC- : 1
- FACU+ : 2
- FACU : 3
- FACU- : 4
- UPL : 5

Provincial Status S Rank

atural erita e n ormation Centre C ro incial status o plants illi e and e etation communities data ase tp nmr o on ca n ic n ic iml O eter orou ro incial ran s are used y l e C to set protection priorities or rare species and natural communities ro incial ran s are used y l e C to set protection priorities or rare species and natural communities T ese ran in s are ased on t e total num ero e tant Ontario populations and t e de tee to ic : t ey are potentially or acti ely t retained it destruction T ese ran s are note at desr nations and species are enerally uncommon to common in t e pio ince pecies ran ed are considered to e rare in Ontario

- S1: Critically Imperiled** - Critically imperiled in the nation or state/province because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state/province.
- S2: Imperiled** - Imperiled in the nation or state/province because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state/province.
- S3: Vulnerable** - Vulnerable in the nation or state/province due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.
- S4: Apparently Secure** - Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- S5: Secure** - Common, widespread, and abundant in the nation or state/province.
- SH: Possibly Extirpated (Historical)**—Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered. Its presence may not have been verified in the past 20-40 years. A species or community could become NH or SH without such a 20-40 year delay if the only known occurrences in a nation or state/province were destroyed or if it had been extensively and unsuccessfully looked for. The NH or SH rank is reserved for species or communities for which some effort has been made to relocate occurrences, rather than simply using this status for all elements not known from verified extant occurrences.

- SR: Reported** in Ontario, but without persuasive documentation.
 - SX: Presumed Extirpated**—Species or community is believed to be extirpated from the nation or state/province. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered.
 - SE: Exotic;** not believed to be a native component of Ontario's flora. Numerical rankings after SE follow designations described above for native species.
 - SNA: Unranked** — Status not assigned.
 - SU: Unranked** — Nation or state/province conservation status not yet assessed.
- Rank ranges, e.g. S2S3, indicate that the rank is either S2 or S3, but that current information is insufficient to differentiate.
 "?" following a rank indicates uncertainty about the assigned rank.
- Q: Questionable taxonomy**—Taxonomic distinctiveness of this entity is questionable; resolution of this uncertainty may result in change from a species to a subspecies or hybrid, or the inclusion of this taxon in another taxon, with the resulting taxon having a lower-priority conservation status.

LOCAL STATUS RANKS

X: native species present (collection-based) and all exotic species
R: native species locally rare (number of sites); Hamilton-Wentworth (<6 sites), Durham (<10 sites), GTA (<40 sites), Site District 6E7 (<20 sites), Oak Ridges Meraine (20 or fewer sites), Halton (<5 sites), Peterborough (suspected of being rare, 5 or fewer occurrences), CVC/Peel Region (<1 sites)

U: native species locally uncommon Hamilton-Wentworth (6-10 sites), Durham (11-20 sites), GTA (41-80 sites), Site District 6E7 (21-40 sites), Halton (5-15 sites).

E: Presumed Extirpated

?: More work required to determine status

H: historic record

O: only old (>20 years) records known (Peterborough)

Record Type

SR - sight record

SRP - sight record with photograph

VARGA 2005 Rankings:

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+ introduced species

X+ Native species that is introduced in that municipality

(*) Possibly introduced species or a native species that is introduced in some municipalities

X Common native species or an introduced species that is present.

R Rare native species

E Extirpated native species that has not been refound at its known locations or its habitat is gone

SR Species record based on a sight record (all other species records based on herbarium collections)

LR Species record based on a literature record

U Uncommon native species

R6 Number of stations for a rare native species

H Historical species not seen since 1950, however its habitat is still present

X Species that occur only in the portion of site district 6E7 outside of the Greater Toronto Area

Status in Carolinian Zone (CZ) Oldham, 2017

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I - Introduced; thought to have been present in the Carolinian Zone or individual CZ area prior to European settlement; believed to be deliberately or inadvertently introduced to the CZ by humans (followed by a status, below)

C - Common

U - uncommon

R - rare

H - Historic records only (generally >30 years)

X - present; status unknown or not specified in source lists

? - unconfirmed report

hyb - hybrid

Combined Status (Status overall in CZ) from Oldham 2017

H - Historic native in all CZ and no known records for at least 30 years in all areas where native and ranked (i.e. not X). Occasionally used for a native species known to be extirpated from its only known CZ location(s)
R - Rare native to the CZ and (a) rar (as defined in source lists; sometimes including "very uncommon") or historic (no records in > 30 years) in more than half of the CZ area (>6) in which it is native and ranked; or (b) if rare or historic in <6 areas it must be uncommon or common in no more than one

U - Uncommon native in the CZ and (a) listed as common in no more than one CZ area; and (b) not rare or historic in more than half of the CZ areas (>6) in which it is native and ranked

C - Common native in the CZ and (a) common in at least two CZ areas; and (b) not rare or historic in more than half of the CZ areas (>6) in which it is native and ranked

X - No status. Present and native in the CZ but no status assigned because of lack of information, often due to confusion with similar species

note - in a few cases, based on professional opinion, CZ status ranks departed from the above criteria, particularly if the species is not ranks in at least four CZ areas

OTHER REFERENCES:

Crins, W.J., Mollveen, W.D., Goodban, A.G., O'Hara, P.G. 2006. Halton Natural Areas Inventory 2006: Volume 2 Species Checklists (The Vascular Plants of Halton Region, Ontario: Species Checklist).

Species		S-Rank	SARO	SARA
Common Name	Scientific Name			
Grey Squirrel	<i>ciurus carolinensis</i>	S5	NA	NA
Northern Raccoon	<i>rocyon lotor</i>	S5	NA	NA
American Robin	<i>Turdus mi ratorius</i>	S5B	NA	NA
Baltimore Oriole	<i>cterus al ula</i>	S4B	NA	NA
Blue Jay	<i>Cyanocitta cristata</i>	S5	NA	NA
Common Grackle	<i>uiscalus uiscula</i>	S5B	NA	NA
Downy Woodpecker	<i>icoides pu escens</i>	S5	NA	NA
Gray Catbird	<i>umetella carolinensis</i>	S4B	NA	NA
House Wren	<i>Tro lodytes aedon</i>	S5B	NA	NA
Killdeer	<i>C aradrius oci erus</i>	S5B,S5N	NA	NA
Northern Cardinal	<i>Cardinalis cardinalis</i>	S5	NA	NA
Northern Flicker	<i>Colaptes auratus</i>	S4B	NA	NA
Pileated Woodpecker	<i>ryocopus pileatus</i>	S5	NA	NA
Red-tailed Hawk	<i>uteo amaicensis</i>	S5	NA	NA
Red-winged Blackbird	<i>elaius p oeniceus</i>	S4	NA	NA
Song Sparrow	<i>elospi a melodia</i>	S5B	NA	NA
Tree Swallow	<i>Tac ycineta icolor</i>	S4B	NA	NA
Turkey Vulture	<i>Cat artes aura</i>	S5B	NA	NA
Yellow Warbler	<i>etop a a petec ia</i>	S5B	NA	NA

Notes:

SARA: Species at Risk Act (NA: Not Assessed)

SARO: Species at Risk in Ontario (NA: Not Assessed)

S-Rank: Sub-national Rank

S4: Common in Ontario: apparently secure, usually more than 100 occurrences

S5: Very common in Ontario, secure

B: Breeding population

N: Nonbreeding population

Common Name	Scientific Name	Species At Risk Act (Sch 1) ¹	Endangered Species Act ²	Habitat Requirements	Potential to Occur in the Study Area
Monarch	<i>Danaus plexippus</i>	SC	SC	In Ontario, monarch is found throughout the northern and southern regions of the province. This butterfly is found wherever there are milkweed (<i>Asclepias</i> spp.) plants for its caterpillars and wildflowers that supply a nectar source for adults. It is often found on abandoned farmland, meadows, open wetlands, prairies and roadsides, but also in city gardens and parks. Important staging areas during migration occur along the north shores of the Great Lakes (COSEWIC 2010).	High - likely to occur as their food, milkweed, was observed several times during site surveys
Mottled duskywing	<i>Glyptotendipes martialis</i>	—	END	In Ontario, the mottled duskywing is found in the same habitat as its food plant <i>Ceanothus</i> spp.: open or partially open, dry, sandy areas, or limestone alvars. These habitats are relatively uncommon and include dry open pine and oak woodland, other open dry woodlands, alvars, savannah and other dry open sandy habitats. Usually seen nectaring on wildflowers, or on wet sandy roads in the company of other duskywing species (Linton 2015).	Low - no <i>Ceanothus</i> or suitable open sandy habitats are present
Bank swallow	<i>Hirundo riparia</i>	THR	THR	In Ontario, the bank swallow breeds in a variety of natural and anthropogenic habitats, including lake bluffs, stream and river banks, sand and gravel pits, and roadcuts. Nests are generally built in a vertical or near-vertical bank. Breeding sites are typically located near open foraging sites such as rivers, lakes, grasslands, agricultural fields, wetlands and riparian woods. Forested areas are generally avoided (Garrison 1999).	Low - no suitable bank habitat observed within Study Area
Barn swallow	<i>Hirundo rustica</i>	THR	THR	In Ontario, barn swallow breeds in areas that contain a suitable nesting structure, open areas for foraging, and a body of water. This species nests in human made structures including barns, buildings, sheds, bridges, and culverts. Preferred foraging habitat includes grassy fields, pastures, agricultural cropland, lake and river shorelines, cleared right-of-ways, and wetlands (COSEWIC 2011). Mud nests are fastened to vertical walls or built on a ledge underneath an overhang. Suitable nests from previous years are reused (Brown and Brown 1999).	Moderate - may occur as there are suitable nesting structures present and open bodies of water
Bobolink	<i>Dolichonyx oryzivorus</i>	THR	THR	In Ontario, bobolink breeds in grasslands or graminoid dominated hayfields with tall vegetation (Gabauer 2007). Bobolink prefers grassland habitat with a forb component and a moderate litter layer. They have low tolerance for presence of woody vegetation and are sensitive to frequent mowing within the breeding season. They are most abundant in established, but regularly maintained, hayfields, but also breed in lightly grazed pastures, old or fallow fields, cultural meadows and newly planted hayfields. Their nest is woven from grasses and forbs. It is built on the ground, in dense vegetation, usually under the cover of one or more forbs (Martin and Gavin 1995).	Low - limited suitable grassland habitat observed within Study Area

Common Name	Scientific Name	Species At Risk Act (Sch 1) ¹	Endangered Species Act ²	Habitat Requirements	Potential to Occur in the Study Area
Chimney swift	<i>C. aetura pelagica</i>	THR	THR	In Ontario, chimney swift breeding habitat is varied and includes urban, suburban, rural and wooded sites. They are most commonly associated with towns and cities with large concentrations of chimneys. Preferred nesting sites are dark, sheltered spots with a vertical surface to which the bird can grip. Unused chimneys are the primary nesting and roosting structure, but other anthropogenic structures and large diameter cavity trees are also used (COSEWIC 2007).	Low - no suitable natural roost observed; may occur in surrounding urban areas
Common nighthawk	<i>C. ordellii minor</i>	THR	SC	These aerial foragers require areas with large open habitat. This includes farmland, open woodlands, clearcuts, burns, rock outcrops, alvars, bog ferns, prairies, gravel pits and gravel rooftops in cities (Sandilands 2007).	Low - limited suitable open habitats observed within Study Area
Eastern meadowlark	<i>turnella magna</i>	THR	THR	In Ontario, the eastern meadowlark breeds in pastures, hayfields, meadows and old fields. Eastern meadowlark prefers moderately tall grasslands with abundant litter cover, high grass proportion, and a forb component (Hull 2003). They prefer well drained sites or slopes, and sites with different cover layers (Roseberry and Klimstra 1970).	Low - limited suitable grassland habitat observed within Study Area
Eastern wood-pewee	<i>Contopus virens</i>	SC	SC	The eastern wood-pewee inhabits a wide variety of wooded upland and lowland habitats but is most commonly associated with the mid-canopy of forest clearings, and edge habitat in deciduous and mixed forests. It also occurs in anthropogenic habitats that provide an open forested aspect such as parks and suburban neighborhoods. It prefers intermediate-age mature forest stands with little understory vegetation (COSEWIC 2012).	Moderate - suitable forested habitat is present in some areas of the Study Area
Grasshopper sparrow <i>pratensis</i> subspecies	<i>mmodramus annarum (pratensis subspecies)</i>	SC	SC	In Ontario, grasshopper sparrow is found in medium to large grasslands with low herbaceous cover and few shrubs. It also uses a wide variety of agricultural fields, including cereal crops and pastures. Close-grazed pastures and limestone plains (e.g. Carden and Napanee Plains) support highest density of this bird in the province (COSEWIC 2013).	Low - limited suitable grassland habitat observed within Study Area
Henslow's sparrow	<i>mmodramus henslowii</i>	END	END	In Ontario, Henslow's sparrow breeds in large grasslands with low disturbance, such as lightly grazed and ungrazed pastures, fallow hayfields, grassy swales in open farmland, and wet meadows. Preferred habitat contains tall, dense grass cover, typically over 30 cm high, with a high percentage of ground cover, and a thick mat of dead plant material. Henslow's sparrow generally avoids areas with emergent woody shrubs or trees, and fence lines. Areas of standing water or ephemerally wet patches appear to be important. This species breeds more frequently in patches of habitat greater than 30 ha and preferably greater than 100 ha (COSEWIC 2011).	Low - limited suitable large open grasslands available in the Study Area

Common Name	Scientific Name	Species At Risk Act (Sch 1) ¹	Endangered Species Act ²	Habitat Requirements	Potential to Occur in the Study Area
Northern bobwhite	<i>Colinus ir inianus</i>	END	END	In Ontario, the northern bobwhite breeds in early successional habitats. This species requires a combination of three habitat types: woody cover, cropland and grassland. Croplands provide foraging habitat, grassland and fields are used for nesting, and dense brush provides both winter forage and year round cover. These birds nest on the ground in a shallow depression lined with grasses and other dead vegetation (Brennan 1999). The distribution of native populations are restricted to southwestern Ontario (ECCC, 2018).	Low - no suitable habitat is present in the Study Area
Peregrine falcon (<i>anatum tundrius</i> subspecies)	<i>alco pere rinus anatum tundrius</i>	SC	SC	In Ontario, peregrine falcon breeds in areas containing suitable nesting locations and sufficient prey resources. Such habitat includes both natural locations containing cliff faces (heights of 50 - 200 m preferred) and also anthropogenic landscapes including urban centres containing tall buildings, open pit mines and quarries, and road cuts. Peregrine falcons nest on cliff ledges and crevices and building ledges. Nests consist of a simple scrape in the substrate (COSEWIC 2007).	Low - no suitable cliffs available for nesting; may occur in surrounding urban areas
Eastern whip-poor-will	<i>nirostromus oci erus</i>	THR	THR	In Ontario, the whip-poor-will breeds in semi-open forests with little ground cover. Breeding habitat is dependent on forest structure rather than species composition, and is found on rock and sand barrens, open conifer plantations and post-disturbance regenerating forest. Territory size ranges from 3 to 11 ha (COSEWIC 2009). No nest is constructed and eggs are laid directly on the leaf litter (Mills 2007).	Low - no suitable open woodland habitat available in the Study Area
Wood thrush	<i>ylocic la mustelina</i>	THR	SC	In Ontario, wood thrush breeds in moist, deciduous hardwood or mixed stands that are often previously disturbed, with a dense deciduous undergrowth and with tall trees for singing perches. This species selects nesting sites with the following characteristics: lower elevations with trees less than 16 m in height, a closed canopy cover (>70 %), a high variety of deciduous tree species, moderate subcanopy and shrub density, shade, fairly open forest floor, moist soil, and decaying leaf litter (COSEWIC 2012).	Moderate - suitable forested habitat is present in some areas of the Study Area
Little brown myotis	<i>yotis luci u us</i>	END	END	In Ontario, this species range is extensive and covers much of the province. It will roost in both natural and man-made structures. They require a number of large dead trees, in specific stages of decay and that project above the canopy in relatively open areas (Lacki, 2007). May form nursery colonies in the attics of buildings within 1 km of water. Caves or abandoned mines may be used for hibernaculum, but high humidity and stable above freezing temperatures are required.	Moderate - suitable forested habitat is present in some areas of the Study Area
Tri-colored bat	<i>erimyotis su la us</i>	END	END	In Ontario, tri-colored bat may roost in foliage, in clumps of old leaves, hanging moss or squirrel nests. They are occasionally found in buildings although there are no records of this in Canada (Poissant et al, 2010). They typically feed over aquatic areas with an affinity to large-bodied water and will likely roost in close proximity to these. Hibernation sites are found deep within caves or mines in areas of relatively warm temperatures. These bats have strong roost fidelity to their winter hibernation sites and may choose the exact same spot in a cave or mine from year to year.	Moderate - suitable forested habitat is present in some areas of the Study Area

Common Name	Scientific Name	Species At Risk Act (Sch 1) ¹	Endangered Species Act ²	Habitat Requirements	Potential to Occur in the Study Area
Northern myotis	<i>Myotis septentrionalis</i>	END	END	In Ontario, this species range is extensive and covers much of the province. It will usually roost in hollows, crevices, and under loose bark of mature trees. Roosts may be established in the main trunk or a large branch of either living or dead trees. Caves or abandoned mines may be used for hibernaculum, but high humidity and stable above freezing temperatures are required (COSSARO 2012).	Moderate - suitable forested habitat is present in some areas of the Study Area
Northern map turtle	<i>Apemys rapica</i>	SC	SC	In Ontario, the northern map turtle prefers large waterbodies with slow-moving currents, soft substrates, and abundant aquatic vegetation. Ideal stretches of shoreline contain suitable basking sites, such as rocks and logs. Along Lakes Erie and Ontario, this species occurs in marsh habitat and undeveloped shorelines. It is also found in small to large rivers with slow to moderate flow. Hibernation takes place in soft substrates under deep water (COSEWIC 2012).	Low - no suitable habitat is present in the Study Area
Snapping turtle	<i>Chelydra serpentina</i>	SC	SC	In Ontario, snapping turtle utilizes a wide range of waterbodies, but shows preference for areas with shallow, slow-moving water, soft substrates and dense aquatic vegetation. Hibernation takes place in soft substrates under water. Nesting sites consist of sand or gravel banks along waterways or roadways (COSEWIC 2008).	Moderate - Joshua's creek may be used for foraging habitat
American chestnut	<i>Castanea dentata</i>	END	END	In Ontario, American chestnut occurs in mixed or deciduous forests in the Carolinian zone (Farrar 1995). It is often found in communities with dense canopy cover and often associated with oak and maple. This tree grows primarily on acidic, sand or gravel soils (Boland et al. 2012).	Low - not observed during field investigations and very rare in Ontario
Butternut	<i>Juglans cinerea</i>	END	END	In Ontario, butternut is found along stream banks, on wooded valley slopes, and in deciduous and mixed forests. It is commonly associated with beech, maple, oak and hickory (Voss and Reznicek 2012). Butternut prefers moist, fertile, well-drained soils, but can also be found in rocky limestone soils. This species is shade intolerant (Farrar 1995).	Moderate - widespread in Ontario; not observed during field investigations but some suitable forest and riparian habitat is present

Notes:

1 Species at Risk Act (SARA), 2002. Schedule 1; Part 1 (Extirpated), Part 2 (Endangered), Part 3 (Threatened), Part 4 (Special Concern)

2 Endangered Species Act (ESA), 2007. Schedule 1 (Extirpated - EXP), Schedule 2 (Endangered - END), Schedule 3 (Threatened - THR), Schedule 4 (Special Concern - SC)

Appendix F

Public Correspondence