MARATHON TRANSFORMER STATION

EXPANSION

CLASS ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL STUDY REPORT

APPENDICES

Appendix A: Consultation

Appendix A1: Project Contact Lists

- First Nations and Métis Communities – Rights Based
- First Nations and Métis Communities – Interest Based
- Federal Government Representatives and Agencies
- Provincial Government Representatives and Agencies
- Municipal Government Representatives and Agencies
- Potentially Affected and Interested Persons and Interest Groups

Appendix A2: Notifications

- Initial Notification
- Public Information Centre
- Final Notification

Appendix A3: Correspondence Log

- First Nations and Métis Communities – Rights Based
- First Nations and Métis Communities – Interest Based
- Federal Government Representatives and Agencies
- Provincial Government Representatives and Agencies
- Municipal Government Representatives and Agencies
- Potentially Affected and Interested Persons and Interest Groups
- Property Owners

Appendix A4: Public Information Centre Summary

APPENDIX A:

CONSULTATION

APPENDIX A-1:

PROJECT CONTACT LISTS

First Nations and Métis Communities – Rights Based

First Name	Last Name	Organization	Address	City	Province	Postal Code	Email
Ojibways of Pic River First Nation							
Chief Duncan	Michano	OPRFN	P.O Box 193 3 Beaver Crescent	Heron Bay	ON	P0T 1R0	chiefpicriver@picriver.com
Pays Plat First Nation							
Chief David P.	Mushquash	PPFN	10 Central Place	Pays Plat	ON	P0T 3C0	ppchief@tbaytel.net
Pic Mobert First Nation							
Chief Johanna	Desmoulin	PMFN	P.O Box 717	Mobert	ON	P0M 2J0	chiefjohanna@picmobert.ca
Métis Nation of Ontario							
James	Wagar	MNO	75 Sherbourne St.	Toronto	ON	M5A 2P9	jamesw@metisnation.org
Bonnie	Bartlett	MNO	75 Sherbourne St.	Toronto	ON	M5A 2P9	BonnieB@metisnation.org
MNO Greenstone Métis Council							
President William	Gordon	MNO	P.O Box 825 211-401R 4th Ave	Geraldton	ON	P0T 1MO	torch50@outlook.com
MNO Superior North Shore Métis Council							
President Trent	Desaulniers	MNO	26 Princess Street	Terrace Bay	ON	P0T 2W0	desaulniers@shaw.ca
MNO Thunder Bay Métis Council							
President Jean	Camirand	MNO	P7E 1B4 226 May Street South	Thunder Bay	ON	P0T 1M0	tboffice@metisnation.org

First Nations and Métis Communities – Interest Based

First Name	Last Name	Organization	Address	City	Province	Postal Code	Email
Animbiigoo Zaagi'igan Anishinaabek							
Chief Theresa	Nelson	AZA	P.O Box 120 240 Main Street	Beardmore	ON	P0T 1G0	tnelson@aza.ca
Bingwi Neyaashi Anishinaabek							
Chief Joe	Ladouceur	BNA	146 Court Street South	Thunder Bay	ON	P7B 2X6	jladoucer@bnafn.ca
Biinjitiwaabik Zaaging Anishinaabek							
Chief Melvin	Hardy	BZA	501 Spirit Bay Rd	Macdiarmid	ON	P0T 2B0	chief@rockybayfn.ca
Fort William First Nation							
Chief Peter	Collins	FWFN	90 Anemki Dr	Fort William First Nation	ON	P7J 1L3	pcollins@fwfn.com
Ginoogaming First Nation							
Chief Celia	Echum	GFN	P.O Box 89	Longlac	ON	P0T 2A0	celia.echum@ginoogamingfn.ca
Long Lake No. 58 First Nation							
Chief Veronica	Waboose	LLFN	P.O Box 609, 209 Otter Street	Longlac	ON	P0T 2A0	veronica.waboose@longlake58fn.ca
Michipicoten First Nation							
Chief Patricia	Tangie	MFN	Box 1, Site 8, R.R. #1	Wawa	ON	P0S 1K0	ptangie@michipicoten.com

First Name	Last Name	Organization	Address	City	Province	Postal Code	Email
Missanabie Cree First Nation							
Chief Jason	Gauthier	MCFN	174B Hwy 17B	Garden River	ON	P6A 6Z1	jgauthier@missanabiecree.com
Ojibways of Batchewana							
Chief Dean	Sayers	OB	236 Frontenac Street	Batchewana First Nation	ON	P6A 6Z1	chiefdeansayers@batchewana.ca
Ojibways of Garden River							
Chief Paul	Syrette	OGR	7 Shingwauk Street	Garden River	ON	P6A 6Z8	psyrette@gardenriver.org
Red Rock Indian Band							
Chief Edward	Wawia	RRIB	P.O Box 1030	Nipigon	ON	P0T 2J0	edward.wawia@rrib.ca
Red Sky Métis Independent Nation							
Dean	Whellan	RSMIN	405 East Victoria Avenue	Thunder Bay	ON	P7C 1A5	consultation@rsmin.ca

Federal Government Agenices

First Name	Last Name	Title	Address	City	Province	Postal Code	Email	Telephone
Aboriginal Affairs and Northern Development Canada								
-	-	Environmental Assessment Coordination – Environmental Unit	25 St. Clair Avenue East, 8th Floor	Toronto	ON	M4T 1M2	EACoordination_ON@aandc-aadnc.gc.ca	-
Canadian Environmental Assessment Agency								
Anjala	Puvananathan	Director, Ontario Regional Office	55 St-Clair Avenue East, Room 907	Toronto	ON	M4T 1M2	anjala.puvananathan@ceaa-acee.gc.ca	416-952-1576
Environment Canada								
Rob	Dobos	Manager - Environmental Assessment Section, Environmental Protection Operations Division - Ontario Region	867 Lakeshore Road, P.O. Box 5050	Burlington	ON	L7R 4A6	rob.dobos@ec.gc.ca	905-336-4953
Health Canada								
Katherine	Hess	Environmental Assessment Coordinator	269 Laurier Ave W, Room 4-017B Mail Stop: 4904A	Ottawa	ON	K1A 0K9	katherine.hess@hc-sc.gc.ca	613-948-9408
NAV Canada								
-	-	AIS Data Collection	1601 Tom Roberts Road, "P.O. Box 9824 Station 'T'	Ottawa	ON	K1G 6R2	landuse@navcanada.ca	-
Transport Canada (TC)								
-	-	Ontario Region	4900 Yonge Street, Suite 300	Toronto	ON	M2N 6A5	enviroont@gc.ca	416-952-0491

Provincial Government Representatives and Agencies

First Name	Last Name	Title	Address	City	Province	Postal Code	Email	Telephone
Ministry of the Environment and Climate Change								
Kieu	Van	Administrative Assistant - Environmental Approvals Branch	135 St. Clair Ave. W, 1st Floor	Toronto	ON	M4V 1P5	kieu.van@ontario.ca	416-314-7040
-	-	Director - Environmental Approvals Branch	135 St. Clair Ave. W, 1st Floor	Toronto	ON	M4V 1P5	-	-
Drew	Stajkowski	Supervisor – Northern Region	Suite 331, 435 James St S	Thunder Bay	ON	P7E 6S7	drew.stajkowski@ontario.ca	807-475-1688
Mira	Mjerovich	Environmental Resource Planner & EA Coordinator (Acting) – Northern Region	12th Floor, 199 Larch St.	Sudbury	ON	P7P3E 5P9	mira.majerovich@ontario.ca	807-475-7171
Agni	Papageorgiou	Special Project Officer	-	-	ON	-	Agni.Papageorgiou@ontario.ca	-
Trina	Rawn	District Planner – Northern Region	3rd Flr Suite 331B, 435 James St S	Thunder Bay	ON	P7E 6S7	celeste.dugas@ontario.ca	807-468-2734
Ministry of Natural Resources and Forestry								
Phil	Couture	Resource Operations Supervisor - Nipigon District	5 Wadsworth Drive	Nipigon	ON	P0T 2J0	phil.couture@ontario.ca	807-887-5022
Kimberly	McNaughton	District Planner – Nipigon District	5 Wadsworth Drive	Nipigon	ON	P0T 2J0	kimberly.mcnaghton@ontario.ca	807-887-5113
Ray	Tyhuis	Management Biologist – Nipigon District	5 Wadsworth Drive	Nipigon	ON	P0T 2J0	raymond.tyhuis@ontario.ca	807-887-5076
Chris	Magee	District Manager – Nipigon District	5 Wadsworth Drive	Nipigon	ON	P0T 2J0	chris.magee@ontario.ca	807-887-5013
Ministry of Tourism Culture and Sport								
Karla	Barboza	Team Lead - Heritage Program Unit	401 Bay Street, Suite 1700	Toronto	ON	M7A 0A7	karla.barboza@ontario.ca	416.314.7120
Ministry of Northern Development and Mines								
Priya	Tandon	Director	5th Flr, 99 Wellesley St W	Toronto	ON	M7A 1W3	priya.tandon@ontario.ca	416-327-0302
Ministry of Energy								
Shannon	McCabe	Acting Manager	6th Flr, 77 Grenville St	Toronto	ON	M7A 1B3	Shannon.McCabe@ontario.ca	416-314-2599
Ministry of Housing								
Victoria	Kosny	Manager, Municipal Services Office – North (Thunder Bay)	Suite 223, 435 James St S	Thunder Bay	ON	P7E 6S7	victoria.kosny@ontario.ca	807-473-3025
Ministry of Municipal Affairs and Housing								
Victor	Doyle	Manager - Planning Innovation Section Provincial Planning Policy Branch	777 Bay Street, 14th Floor	Toronto	ON	M5G 2E5	Victor.doyle@ontario.ca	416-585-6109

Municipal Government Representatives and Agencies

First Name	Last Name	Title	Address	City	Province	Postal Code	Email	Telephone
Town of Marathon								
Rick	Dumas	Mayor	4 Hemlo Drive	Marathon	ON	P0T 2E0	mayor@marathon.ca	-
Brian	Hyshka	Works & Operations Manager	4 Hemlo Drive	Marathon	ON	P0T 2E0	worksmanager@marathon.ca	(807) 229-1340 x 2229
Daryl	Skworchinski	Chief Administrative Officer/Clerk	4 Hemlo Drive	Marathon	ON	P0T 2E0	cao@marathon.ca	(807) 229-1340 x 2222

Potentially Affected and Interested Persons and Interest Groups

Organization	Address	City	Province	Postal Code	Email
Nawiinginokiima Forest Management Corporation					
-	22 Peninsula Road, First Floor	Marathon	ON	P0T 2E0	neil.mcdonald@nfmcforestry.ca
Marathon Cross Country Ski and Snowshoe Club					
-	141 Peninsula Road	Marathon	ON	P0T 2E0	marathonskiclub@gmail.com
Marathon Sno-Kickers Snowmobile Club					
-	-	Marathon	ON	P0T 2E0	
Peninsula Golf Course					
-	-	Marathon	ON	-	brettredden@hotmail.com
Superior Ridge Runners ATV Club					
-	-	Marathon	ON	-	linfield@vianet.ca
Ontario Federation of Snowmobile Clubs – District 17 – Thunder Bay					
-	Site 220 Box 10 RR2	Dryden	ON	P8N 2Y5	-
Shack Lake Bulk Sampling Project – Mining Claims #1218370 and #4241515					
-	111 8th Street	Nipigon	ON	P0T 2J0	-

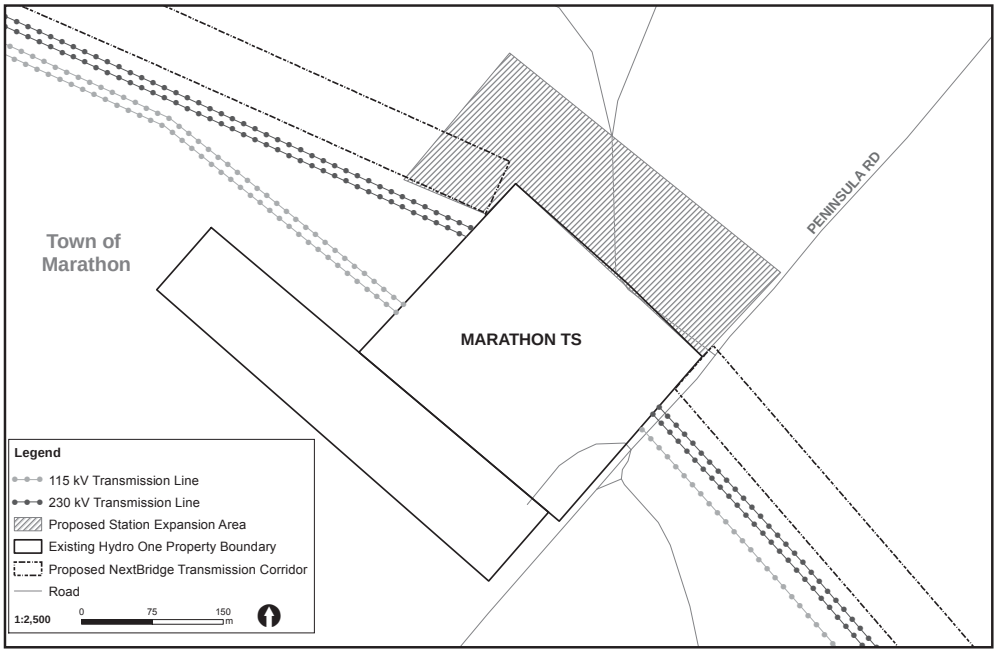
APPENDIX A-2:

PROJECT NOTIFICATIONS

INITIAL NOTIFICATION

NOTICE OF COMMENCEMENT
Class Environmental Assessment
Proposed Marathon Transformer Station Expansion

Hydro One Networks Inc. (Hydro One) is initiating a Class Environmental Assessment (Class EA) to expand the existing Marathon Transformer Station (TS), located at 217 Peninsula Road in the Town of Marathon. This project is required to connect NextBridge Infrastructure's proposed new East-West Tie transmission line to the station.



As part of this project, the following work is being proposed:

- Installation of new electrical equipment such as circuit breakers and disconnect switches;
- Connection of NextBridge's proposed new line to the station and reconfiguration of existing line connections; and
- Installation of a new relay building, which would house electronic devices critical for safety, reliability and security of the power system.

To accommodate this work, the existing Marathon TS would have to be expanded by approximately five hectares onto adjacent Crown land. Hydro One will seek to acquire the land from the Ministry of Natural Resources and Forestry (MNRF).

Please note that the access road to Shack Lake will be relocated to accommodate the proposed station expansion. Hydro One will consult with the MNRF, Town of Marathon and local groups to determine its new location off of Peninsula Road.

Project approval requirements

The proposed Marathon TS expansion project is subject to the *Class Environmental Assessment for Minor Transmission Facilities* (Hydro One, 2016), an approved planning process under the *Environmental Assessment Act*. The proposed work will also be carried out according to the requirements set out in the *Class EA for Resource Stewardship and Facility Development Projects* (MNR, 2002). In addition, approval from the Ontario Energy Board is required for the proposed new East-West Tie Project and all associated work, including the proposed station expansion at Marathon TS. Contingent on the completion of the Class EA process and OEB approval, construction could begin in mid-2018 in order to meet the planned in-service date of December 2020.

We want to hear from you

The Class EA process provides opportunities for First Nations and Métis communities, members of the public, businesses, stakeholder groups, government agencies and other interested parties to participate and provide feedback. Hydro One will be holding a Public Information Centre (PIC) in Marathon this summer to provide additional information and to gather input from nearby residents and other stakeholders. Notice of the PIC will be advertised in local media and delivered to area residents. Your input is important and we welcome your questions and comments.

For more information

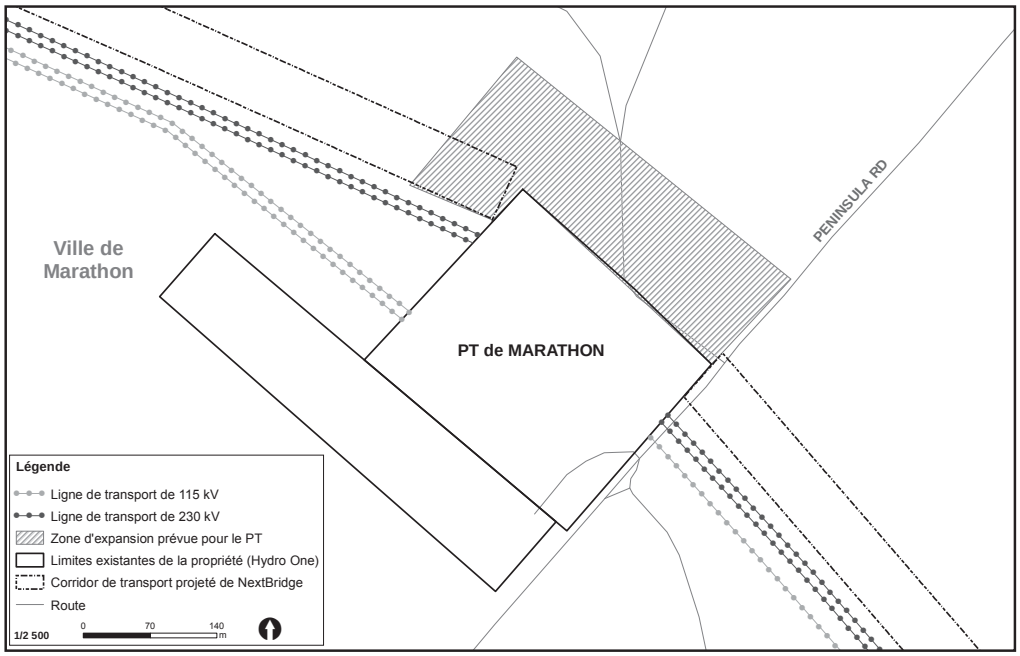
If you would like more information, or wish to receive our project updates by email, please contact:

Stephanie Hodsoll
Hydro One Community Relations
T: 1-877-345-6799
E: Community.Relations@HydroOne.com
www.HydroOne.com/Projects/MarathonTS

hydro one
Partners in Powerful Communities

AVIS DE LANCEMENT
Évaluation environnementale de portée générale
Projet d'expansion du poste de transformation de Marathon

Hydro One Networks Inc. (Hydro One) entreprend une évaluation environnementale de portée générale en vue du projet d'expansion du poste de transformation (PT) existant de Marathon, qui est situé dans la municipalité de Marathon, au 217 Peninsula Road. Ce projet est nécessaire pour relier la nouvelle ligne d'interconnexion Est-Ouest de la société NextBridge Infrastructure (NextBridge) au PT de Marathon.



Dans le cadre de ce projet d'expansion, Hydro One propose de mener les travaux suivants :

- Installation de nouveaux équipements électriques, tels que disjoncteurs et sectionneurs;
- Raccordement au poste de la nouvelle ligne projetée de Nextbridge et reconfiguration des connexions de ligne existantes;
- Installation d'un nouveau bâtiment relais, qui abriterait des appareils électroniques cruciaux pour la sûreté, la fiabilité et la sécurité du réseau d'électricité.

Pour ces travaux, le PT de Marathon devra être agrandi sur une zone d'environ cinq (5) hectares, prise sur des terres de la Couronne adjacentes. Hydro One déposera une demande d'acquisition pour ces terres au ministère des Richesses naturelles et des Forêts (MRNF).

La route d'accès au lac Shack sera déplacée pour faire place à l'expansion proposée du poste. Hydro One consultera le MRNF, la Ville de Marathon et les groupes locaux pour déterminer le nouvel emplacement de la route à partir de Peninsula Road.

Formalités à remplir pour l'autorisation du projet

Le projet d'expansion du PT de Marathon est assujetti à l'*évaluation environnementale de portée générale relative aux petites installations de transport d'électricité* (Hydro One, 2016); celle-ci est un processus de planification de projet approuvé défini par la *Loi sur les évaluations environnementales* de l'Ontario. Les travaux projetés seront aussi réalisés conformément aux exigences de l'*évaluation environnementale de portée générale relative à des projets d'intendance de ressources et de développement d'installations* (MRN, 2002). Par ailleurs, le nouveau projet de ligne d'interconnexion Est-Ouest de NextBridge et tous les travaux qui y sont associés, y compris le projet d'expansion du PT de Marathon, doivent aussi être approuvés par la Commission de l'énergie de l'Ontario (CEO). Sous réserve du respect des formalités à remplir et de l'autorisation de la CEO, les travaux pourraient débuter vers la mi-2018, la date d'entrée en exploitation du projet étant prévue pour décembre 2020.

Nous souhaitons connaître vos commentaires

Le processus d'évaluation environnementale de portée générale offre aux communautés des Premières nations et Métis, au public, aux entreprises, aux organismes gouvernementaux et à d'autres parties intéressées l'occasion de participer et de communiquer leurs commentaires. Hydro One organisera une séance d'information publique cet été à Marathon pour partager d'autres informations sur le projet et pour recueillir les commentaires des résidents locaux et d'autres intervenants. L'avis de séance d'information publique sera publié dans les journaux locaux et distribué aux habitants de la région. Vos questions et commentaires sont très importants. Nous vous invitons à nous les communiquer.

Autres renseignements

Si vous désirez obtenir d'autres renseignements, ou si vous voulez recevoir des mises à jour sur ce projet par courriel, n'hésitez pas à contacter :

Stephanie Hodsoll
Relations publiques, Hydro One
Tél. : 1-877-345-6799
Courriel : Community.Relations@HydroOne.com
www.HydroOne.com/Projects/MarathonTS

hydro one

FIRST NATIONS & MÉTIS COMMUNITIES–

RIGHTS BASED

Hydro One Networks Inc.
483 Bay Street
North Tower, 14th Floor
Toronto, Ontario, M5G 2P5
www.HydroOne.com

Tel: 416-345-6597
Email: Brian.McCormick@HydroOne.com

Brian McCormick
Manager, Environmental Engineering & Project Support

March 15, 2017

[redacted]

RE: Class Environmental Assessment for Marathon Transformer Station Expansion located in the Town of Marathon

Dear [redacted],

I am writing to inform you that Hydro One Networks Inc. (Hydro One) is initiating a Class Environmental Assessment (EA) to expand the existing Marathon Transformer Station (TS), located at 217 Peninsula Road, by approximate five hectares. The proposed expansion area is shown on the attached map.

To support NextBridge Infrastructure's proposed new East-West Tie Transmission Project, the following work would be required at Marathon TS:

- Installation of new electrical equipment such as circuit breakers, disconnect switches, and shunt reactors;
- Reconfiguration of the existing electrical component is also required to establish the connection of the proposed new line; and
- Expansion of the existing Marathon TS by approximate five hectares on the north side along Peninsula Road on Crown land. Hydro One will seek to acquire this land from the Ministry of Natural Resources and Forestry (MNRF).

In order to accommodate NextBridge's Transmission Project, additional station and line work will also be required at other locations along the planned new transmission line.

The proposed Marathon TS Expansion Project is subject to Class Environmental Assessment for Minor Transmission Facilities (Hydro One, 2016) process, in accordance with the *Ontario Environmental Assessment Act*. The Class EA was developed as a streamlined process to ensure that minor transmission projects that have a predictable range of effects have feasible environmental mitigation and/or protection measures in place. The proposed work will also be carried out as per requirements set out in the Class EA for Resource Stewardship and Facility Development Projects document (MNR, 2002).

A Public Information Centre (PIC) will be scheduled in the summer of 2017. This PIC will provide interested parties with an opportunity to learn more about the project and the Class EA process, as well as to provide feedback and discuss any questions or concerns with our project team. You will receive an invitation to attend the PIC; however, Hydro One will be available to come to your community to share the same information with you and your community.

Contingent on the outcome of the Class EA Process, work may begin as early as January 2018, in order to meet the planned in-service date of December 2020.

We welcome your comments and feedback on the proposed Marathon TS Expansion Project at any time during the Class EA process. At your request, we would be pleased to arrange a meeting to gather your input or feedback, and to offer a meaningful opportunity to discuss areas of interest or any concerns regarding this project. If you would like to set up a meeting we would be happy to do so at the earliest stage of the project. Should there be any update to the project information provided, we will ensure you are promptly informed.

Information regarding the *Freedom of Information and Protection of Privacy Act* can be viewed below.

If you have any questions regarding this project, please feel free to contact me at (416) 345 6597, or April Fang, Environmental Planner at (416) 345-1260, or AprilBihui.Fang@HydroOne.com.

Sincerely,

Brian McCormick
Manager, Environmental Engineering & Project Support
Hydro One Networks Inc.

CC:
Daniel Charbonneau, Senior Manager, First Nations & Métis Relations, Hydro One
Tausha Esquega, Coordinator, First Nations & Métis Relations, Hydro One

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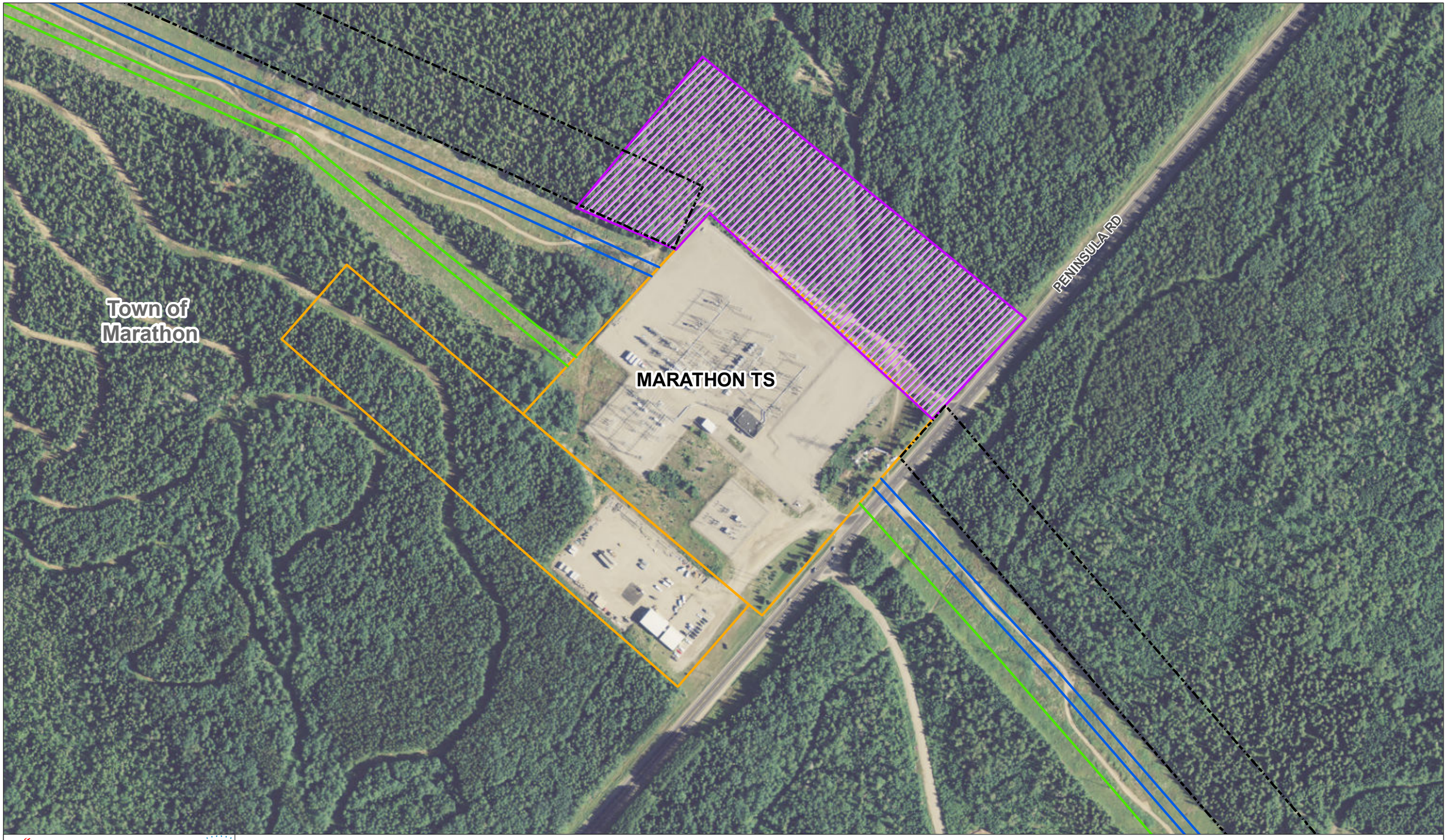
Freedom of Information and Protection of Privacy Act

All personal information included in a submission – such as name, address, telephone number and property location – is collected, maintained and disclosed by the Ministry of the Environment and Climate Change for the purpose of transparency and consultation. The information is collected under the authority of the *Environmental Assessment Act* or is collected and maintained for the purpose of creating a record that is available to the general public as described in s. 37 of the *Freedom of Information and Protection of Privacy Act*. Personal information you submit will become part of a public record that is available to the general public unless you

request that your personal information remain confidential. For more information, please contact the Ministry of the Environment and Climate Change's Freedom of Information and Privacy Coordinator at 416-327-1434.



hydro one

inergi

Produced By: Inergi LP, GIS Services
Date: March 14, 2017
Map 17-04_East-West_Tie_Connections_Project_MarathonTS_Expansion_GA_ortho

Transmission Line

115 kV

230 kV

Proposed Station Expansion Area

Existing Hydro One Property Boundary

Proposed NextBridge Transmission Corridor

Proposed Marathon TS Expansion

1:3,000

0 50 100 m

FIRST NATIONS & MÉTIS COMMUNITIES– INTEREST BASED

Hydro One Networks Inc.
483 Bay Street
North Tower, 14th Floor
Toronto, Ontario, M5G 2P5
www.HydroOne.com

Tel: 416-345-6597
Email: Brian.McCormick@HydroOne.com

Brian McCormick
Manager, Environmental Engineering & Project Support

March 15, 2017

[redacted]

RE: Class Environmental Assessment for Marathon Transformer Station Expansion located in the Town of Marathon

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In order to accommodate NextBridge's Transmission Project, additional station and line work will also be required at other locations along the planned new transmission line.

The proposed Marathon TS Expansion Project is subject to Class Environmental Assessment for Minor Transmission Facilities document (Hydro One, 2016) process, in accordance with the *Ontario Environmental Assessment Act*. The Class EA was developed as a streamlined process to ensure that minor transmission projects that have a predictable range of effects have feasible environmental mitigation and/or protection measures in place. The proposed work will also be carried out as per requirements set out in the Class EA for Resource Stewardship and Facility Development Projects document (MNR, 2002).

A Public Information Centre (PIC) will be scheduled in the summer of 2017. This PIC will provide interested parties with an opportunity to learn more about the project and the Class EA process, as well as to provide feedback and discuss any questions or concerns with our project team. You will be invited to the PIC when the details are confirmed.

Contingent on the outcome of the Class EA Process, work may begin as early as January 2018, in order to meet the planned in-service date of December 2020.

We welcome your comments and feedback regarding the proposed Marathon TS Expansion Project. If you are interested, we would be pleased to arrange a meeting to discuss project details.

Information regarding the *Freedom of Information and Protection of Privacy Act* can be viewed below.

If you have any questions regarding this project, please feel free to contact me at (416) 345 6597, or April Fang, Environmental Planner at (416) 345-1260, or AprilBihui.Fang@HydroOne.com.

Sincerely,

Brian McCormick
Manager, Environmental Engineering & Project Support
Hydro One Networks Inc.

CC:

Daniel Charbonneau, Senior Manager, First Nations & Métis Relations, Hydro One
Tausha Esquega, Coordinator, First Nations & Métis Relations, Hydro One

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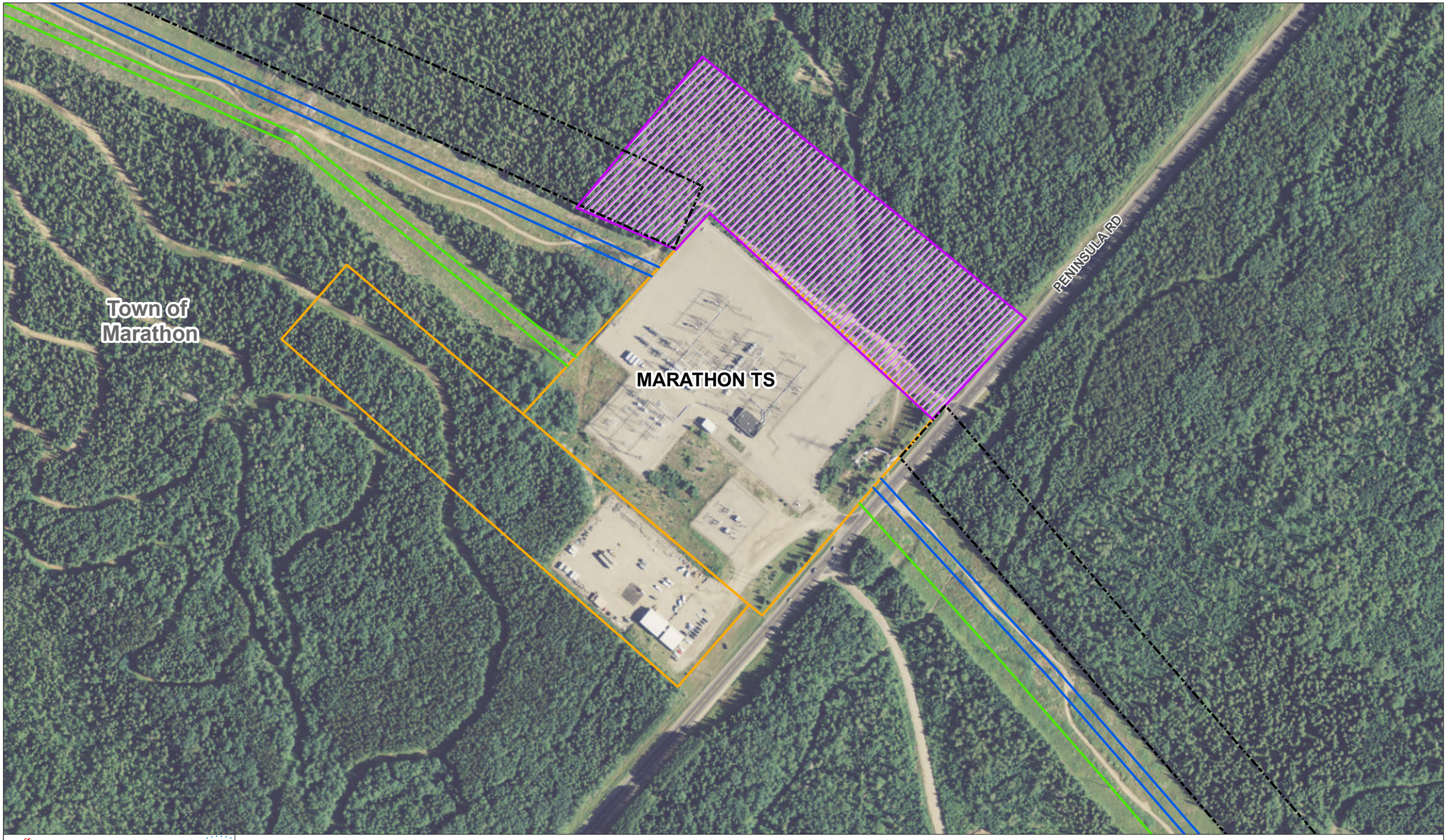

hydro one

inergi

Produced By: Inergi LP, GIS Services
Date: March 14, 2017
Map 17-04_East-West_Tie_Connections_Project_MarathonTS_Expansion_GA_ortho

Transmission Line

115 kV

230 kV

Proposed Station Expansion Area

Existing Hydro One Property Boundary

Proposed NextBridge Transmission Corridor

Proposed Marathon TS Expansion

1:3,000

0 50 100 m

FEDERAL, PROVINCIAL & MUNCIPAL GOVERNMENT REPRESENTATIVES & AGENCIES

Hydro One Networks Inc.
483 Bay Street
North Tower, 12th Floor
Toronto, Ontario, M5G 2P5
www.HydroOne.com

Tel: 416-345-1260
Email: Aprilbihui.Fang@HydroOne.com

April Fang
Planner, Environmental Engineering & Project Support

May 12th, 2017

[redacted]

RE: Class Environmental Assessment for Marathon Transformer Station Expansion located in the Town of Marathon

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- Installation of a new relay building, which would house electronic devices critical for safety, reliability and security of the power system

To accommodate NextBridge's Transmission Project, the existing Marathon TS will be expanded by approximately five hectares on the north side along Peninsula Road on Crown land. Hydro One will seek to acquire this land from the Ministry of Natural Resources and Forestry (MNRF). Additional station and line work will also be required at other locations along the planned new transmission line.

The proposed Marathon TS Expansion Project is subject to Class Environmental Assessment for Minor Transmission Facilities (Hydro One, 2016) process, in accordance with the *Ontario Environmental Assessment Act*. The Class EA was developed as a streamlined process to ensure that minor transmission projects that have a predictable range of effects have feasible environmental mitigation and/or protection measures in place. The proposed work will also be carried out as per

requirements set out in the Class EA for Resource Stewardship and Facility Development Projects (MNR, 2002).

A Public Information Centre (PIC) will be scheduled in the Town of Marathon for the summer of 2017. This PIC will provide interested parties with an opportunity to learn more about the project and the Class EA process, as well as to provide feedback and discuss any questions or concerns with our project team. You will be invited to the PIC when the details are confirmed.

Contingent on the outcome of the Class EA Process, work may begin as early as mid-2018, in order to meet the planned in-service date of December 2020.

We welcome your comments and feedback regarding the proposed Marathon TS Expansion Project. If you are interested, we would be pleased to arrange a meeting to discuss project details.

Information regarding the *Freedom of Information and Protection of Privacy Act* can be viewed below.

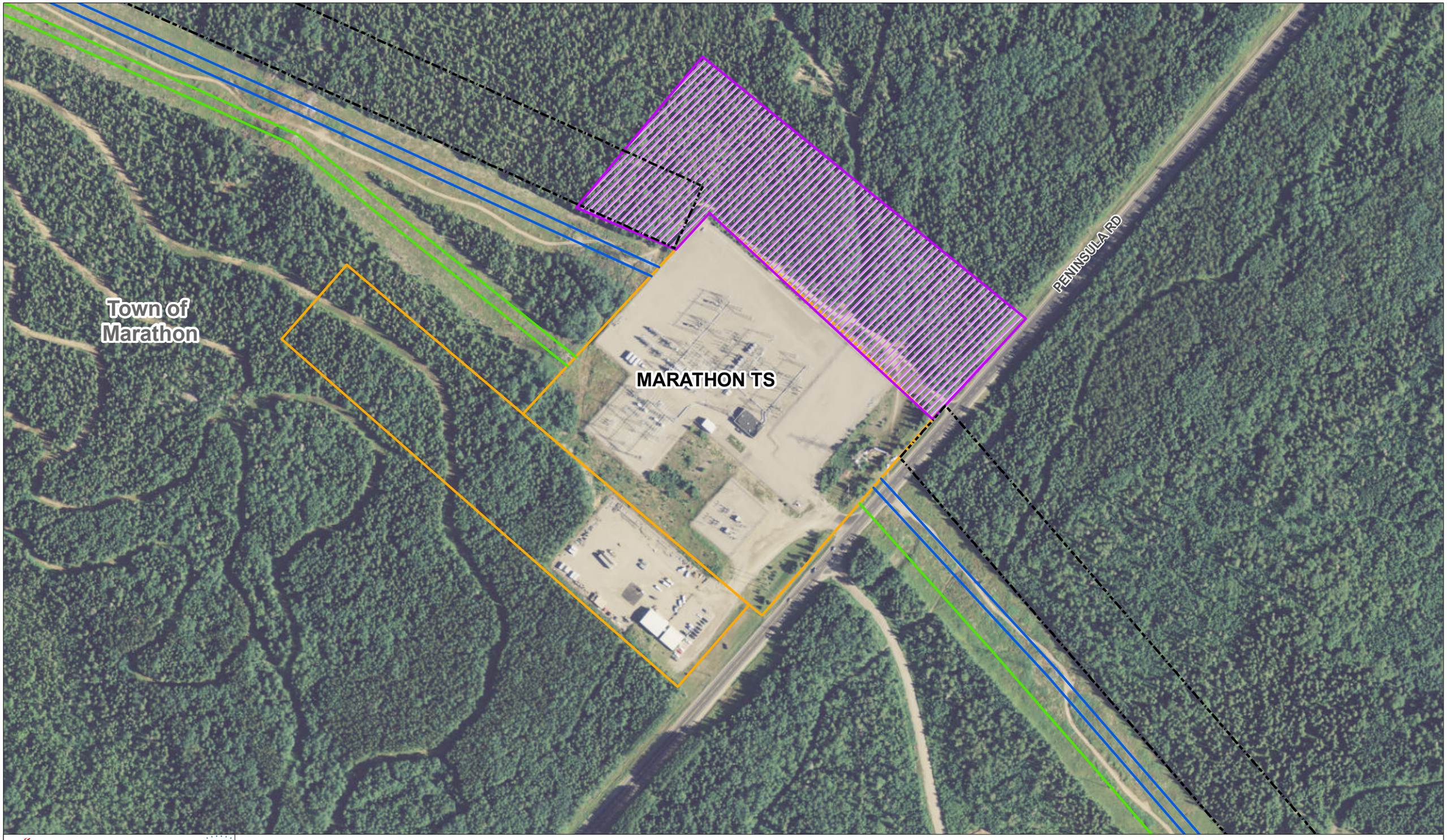
If you have any questions regarding this project, please feel free to contact me at (416) 345 6597, or April Fang, Environmental Planner at (416) 345-1260, or AprilBihui.Fang@HydroOne.com.

Sincerely,

April Fang
Environmental Planner
Environmental Engineering & Project Support
Hydro One

Freedom of Information and Protection of Privacy Act

All personal information included in a submission – such as name, address, telephone number and property location – is collected, maintained and disclosed by the Ministry of the Environment and Climate Change for the purpose of transparency and consultation. The information is collected under the authority of the *Environmental Assessment Act* or is collected and maintained for the purpose of creating a record that is available to the general public as described in s. 37 of the *Freedom of Information and Protection of Privacy Act*. Personal information you submit will become part of a public record that is available to the general public unless you request that your personal information remain confidential. For more information, please contact the Ministry of the Environment and Climate Change's Freedom of Information and Privacy Coordinator at 416-327-1434.



hydro one

inergi

Produced By: Inergi LP, GIS Services
Date: March 14, 2017
Map 17-04_East-West_Tie_Connections_Project_MarathonTS_Expansion_GA_ortho

Transmission Line

115 kV

230 kV

Proposed Station Expansion Area

Existing Hydro One Property Boundary

Proposed NextBridge Transmission Corridor

Proposed Marathon TS Expansion

1:3,000

0 50 100 m

POTENTIALLY AFFECTED & INTERESTED PERSONS & INTEREST GROUPS

Hydro One Networks Inc.
483 Bay Street
North Tower, 12th Floor
Toronto, Ontario, M5G 2P5
www.HydroOne.com

Tel: 416-345-1260
Email: Aprilbihui.Fang@HydroOne.com

April Fang
Planner, Environmental Engineering & Project Support

May 17th, 2017

[redacted]

RE: Class Environmental Assessment for Marathon Transformer Station Expansion located in the Town of Marathon

To [redacted],

I am writing to inform you that Hydro One Networks Inc. (Hydro One) is initiating a Class Environmental Assessment (EA) to expand the existing Marathon Transformer Station (TS), located at 217 Peninsula Road in the Town of Marathon. The proposed expansion area is shown on the attached map.

To support NextBridge Infrastructure's proposed new East-West Tie Transmission Project, the following work would be required at Marathon TS:

- Installation of new electrical equipment such as circuit breakers, disconnect switches and shunt reactors;
- Reconfiguration of the existing electrical component to establish the connection of the proposed new line; and
- Installation of a new relay building, which would house electronic devices critical for safety, reliability and security of the power system

To accommodate NextBridge's Transmission Project, the existing Marathon TS will be expanded by approximately five hectares on the north side along Peninsula Road on Crown land. Hydro One will seek to acquire this land from the Ministry of Natural Resources and Forestry (MNRF). Additional station and line work will also be required at other locations along the planned new transmission line.

The proposed Marathon TS Expansion Project is subject to Class Environmental Assessment for Minor Transmission Facilities (Hydro One, 2016) process, in accordance with the *Ontario Environmental Assessment Act*. The Class EA was developed as a streamlined process to ensure that minor transmission projects that have a predictable range of effects have feasible environmental mitigation and/or protection measures in place. The proposed work will also be carried out as per

requirements set out in the Class EA for Resource Stewardship and Facility Development Projects (MNR, 2002).

A Public Information Centre (PIC) will be scheduled in the Town of Marathon for the summer of 2017. This PIC will provide interested parties with an opportunity to learn more about the project and the Class EA process, as well as to provide feedback and discuss any questions or concerns with our project team. You will be invited to the PIC when the details are confirmed.

Contingent on the outcome of the Class EA Process, work may begin as early as mid-2018, in order to meet the planned in-service date of December 2020.

We welcome your comments and feedback regarding the proposed Marathon TS Expansion Project. If you are interested, we would be pleased to arrange a meeting to discuss project details.

Information regarding the *Freedom of Information and Protection of Privacy Act* can be viewed below.

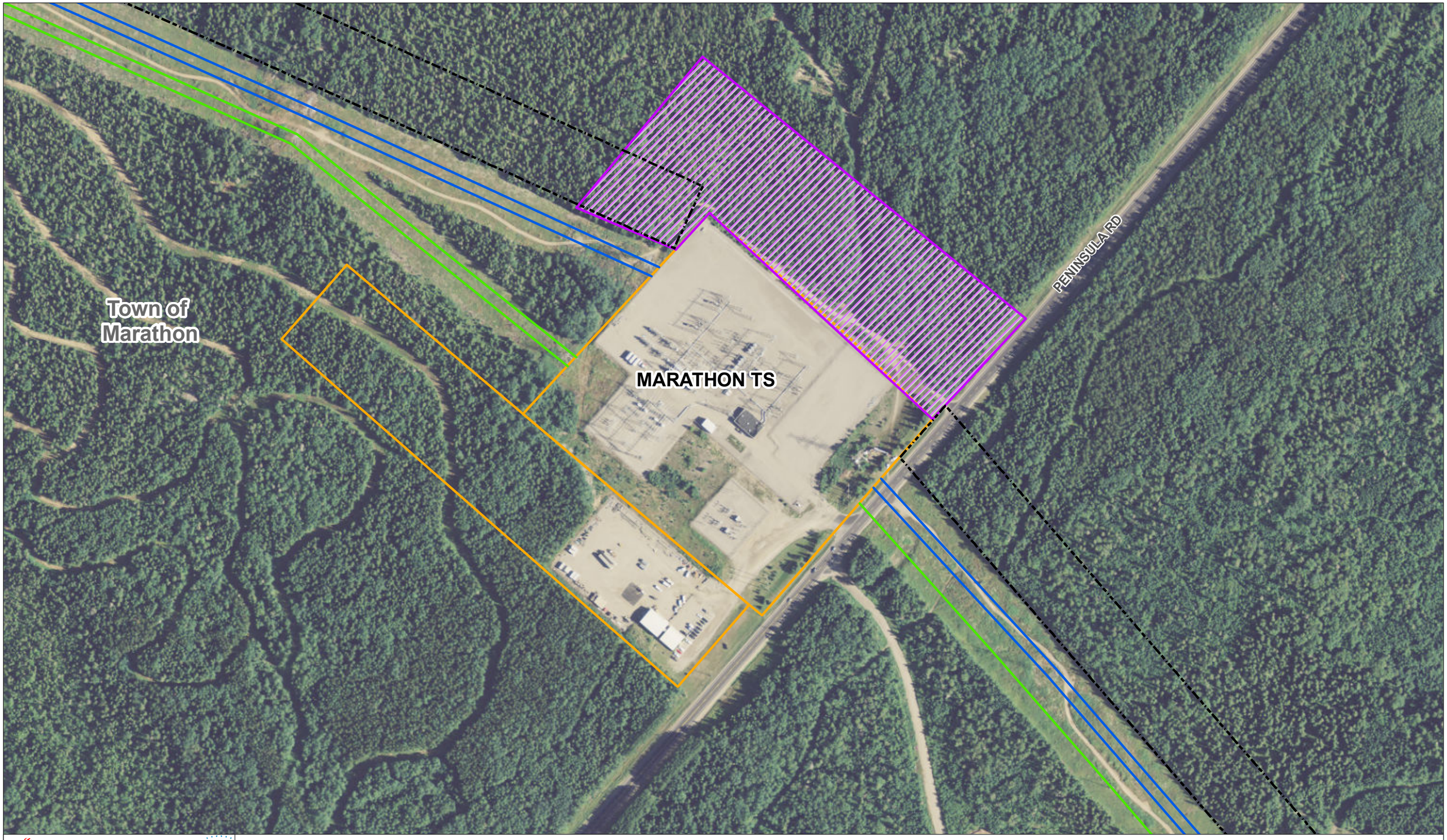
If you have any questions regarding this project, please feel free to contact me at (416) 345 6597, or April Fang, Environmental Planner at (416) 345-1260, or AprilBihui.Fang@HydroOne.com.

Sincerely,

April Fang
Environmental Planner
Environmental Engineering & Project Support
Hydro One

Freedom of Information and Protection of Privacy Act

All personal information included in a submission – such as name, address, telephone number and property location – is collected, maintained and disclosed by the Ministry of the Environment and Climate Change for the purpose of transparency and consultation. The information is collected under the authority of the *Environmental Assessment Act* or is collected and maintained for the purpose of creating a record that is available to the general public as described in s. 37 of the *Freedom of Information and Protection of Privacy Act*. Personal information you submit will become part of a public record that is available to the general public unless you request that your personal information remain confidential. For more information, please contact the Ministry of the Environment and Climate Change's Freedom of Information and Privacy Coordinator at 416-327-1434.



hydro one

inergi

Produced By: Inergi LP, GIS Services
Date: March 14, 2017
Map 17-04_East-West_Tie_Connections_Project_MarathonTS_Expansion_GA_ortho

Transmission Line

115 kV

230 kV

Proposed Station Expansion Area

Existing Hydro One Property Boundary

Proposed NextBridge Transmission Corridor

Proposed Marathon TS Expansion

1:3,000

0 50 100 m

PROPERTY OWNERS

Hydro One Networks Inc.
Community Relations
483 Bay Street
South Tower, 6th Floor
Toronto, ON M5G 2P5

Tel: 1-877-345-6799
Community.Relations@HydroOne.com

www.HydroOne.com

[redacted]

May 15, 2017

To Whom it may Concern:

Re: Your Property at [redacted]

We're writing today to let you know that Hydro One is initiating a Class Environmental Assessment to expand the existing Marathon Transformer Station, located at 217 Peninsula Road, and we have identified that your property is near the proposed project area. This project is required to connect NextBridge Infrastructure's proposed new East-West Tie transmission line to the station. Further information is available in the attached advertisement, which will be published in the *Marathon Mercury* on Tuesday, May 23, 2017.

We are aware that the access road to Shack Lake is used by recreational enthusiasts; please note that it will be relocated to accommodate the proposed station expansion. Hydro One will consult with the Ministry of Natural Resources and Forestry, Town of Marathon and local groups to determine its new location off of Peninsula Road.

This summer, Hydro One will be holding a Public Information Centre to provide further information about the proposed project and to provide interested parties an opportunity to meet with members of the project team.

For more information, please visit the project website at HydroOne.com/Projects/MarathonTS.

If you have any questions or comments at this time, please don't hesitate to contact me.

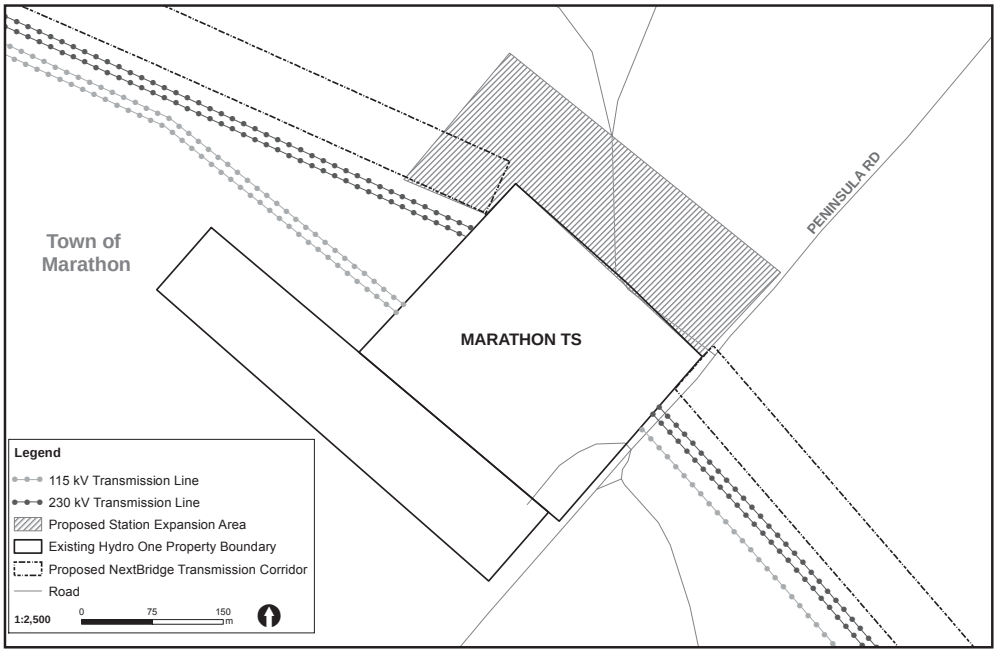
Yours truly,

Stephanie Hodsoll

Community Relations Officer
Hydro One Networks Inc.
t: 416-345-6799
e: Community.Relations@HydroOne.com

NOTICE OF COMMENCEMENT
Class Environmental Assessment
Proposed Marathon Transformer Station Expansion

Hydro One Networks Inc. (Hydro One) is initiating a Class Environmental Assessment (Class EA) to expand the existing Marathon Transformer Station (TS), located at 217 Peninsula Road in the Town of Marathon. This project is required to connect NextBridge Infrastructure's proposed new East-West Tie transmission line to the station.



As part of this project, the following work is being proposed:

- Installation of new electrical equipment such as circuit breakers and disconnect switches;
- Connection of NextBridge's proposed new line to the station and reconfiguration of existing line connections; and
- Installation of a new relay building, which would house electronic devices critical for safety, reliability and security of the power system.

To accommodate this work, the existing Marathon TS would have to be expanded by approximately five hectares onto adjacent Crown land. Hydro One will seek to acquire the land from the Ministry of Natural Resources and Forestry (MNRF).

Please note that the access road to Shack Lake will be relocated to accommodate the proposed station expansion. Hydro One will consult with the MNRF, Town of Marathon and local groups to determine its new location off of Peninsula Road.

Project approval requirements

The proposed Marathon TS expansion project is subject to the *Class Environmental Assessment for Minor Transmission Facilities* (Hydro One, 2016), an approved planning process under the *Environmental Assessment Act*. The proposed work will also be carried out according to the requirements set out in the *Class EA for Resource Stewardship and Facility Development Projects* (MNR, 2002). In addition, approval from the Ontario Energy Board is required for the proposed new East-West Tie Project and all associated work, including the proposed station expansion at Marathon TS. Contingent on the completion of the Class EA process and OEB approval, construction could begin in mid-2018 in order to meet the planned in-service date of December 2020.

We want to hear from you

The Class EA process provides opportunities for First Nations and Métis communities, members of the public, businesses, stakeholder groups, government agencies and other interested parties to participate and provide feedback. Hydro One will be holding a Public Information Centre (PIC) in Marathon this summer to provide additional information and to gather input from nearby residents and other stakeholders. Notice of the PIC will be advertised in local media and delivered to area residents. Your input is important and we welcome your questions and comments.

For more information

If you would like more information, or wish to receive our project updates by email, please contact:

Stephanie Hodsoll
Hydro One Community Relations
T: 1-877-345-6799
E: Community.Relations@HydroOne.com
www.HydroOne.com/Projects/MarathonTS

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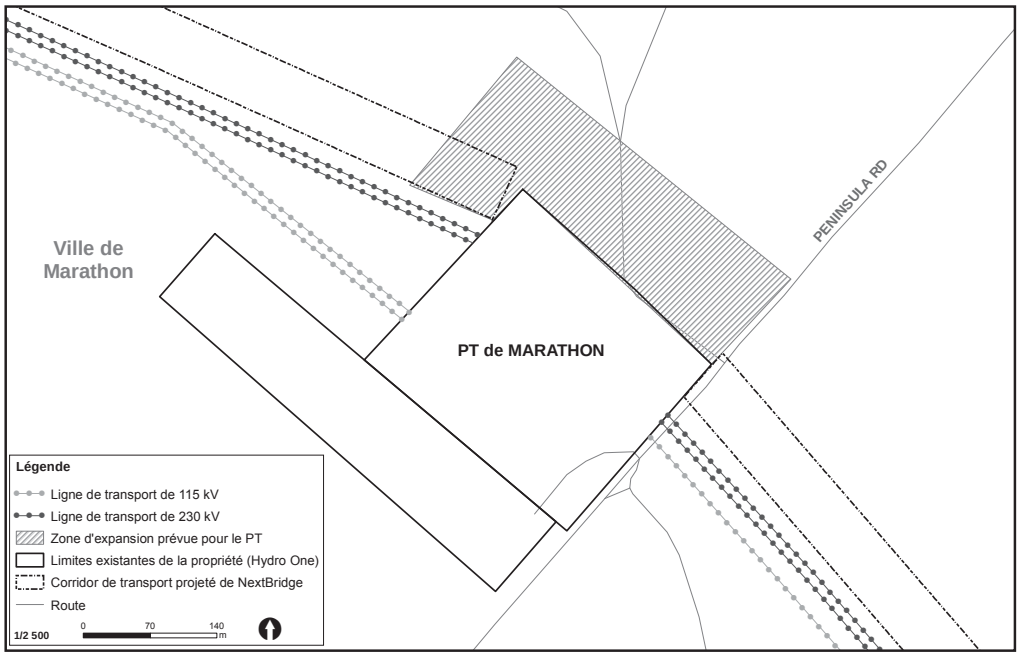
AVIS DE LANCEMENT
Évaluation environnementale de portée générale
Projet d'expansion du poste de transformation de Marathon

Hydro One Networks Inc. (Hydro One) entreprend une évaluation environnementale de portée générale en vue du projet d'expansion du poste de transformation (PT) existant de Marathon, qui est situé dans la municipalité de Marathon, au 217 Peninsula Road. Ce projet est nécessaire pour relier la nouvelle ligne d'interconnexion Est-Ouest de la société NextBridge Infrastructure (NextBridge) au PT de Marathon.



Dans le cadre de ce projet d'expansion, Hydro One propose de mener les travaux suivants :

- Installation de nouveaux équipements électriques, tels que disjoncteurs et sectionneurs;
- Raccordement au poste de la nouvelle ligne projetée de Nextbridge et reconfiguration des connexions de ligne existantes;
- Installation d'un nouveau bâtiment relais, qui abriterait des appareils électroniques cruciaux pour la sûreté, la fiabilité et la sécurité du réseau d'électricité.

Pour ces travaux, le PT de Marathon devra être agrandi sur une zone d'environ cinq (5) hectares, prise sur des terres de la Couronne adjacentes. Hydro One déposera une demande d'acquisition pour ces terres au ministère des Richesses naturelles et des Forêts (MRNF).

La route d'accès au lac Shack sera déplacée pour faire place à l'expansion proposée du poste. Hydro One consultera le MRNF, la Ville de Marathon et les groupes locaux pour déterminer le nouvel emplacement de la route à partir de Peninsula Road.

Formalités à remplir pour l'autorisation du projet

Le projet d'expansion du PT de Marathon est assujetti à l'*évaluation environnementale de portée générale relative aux petites installations de transport d'électricité* (Hydro One, 2016); celle-ci est un processus de planification de projet approuvé défini par la *Loi sur les évaluations environnementales* de l'Ontario. Les travaux projetés seront aussi réalisés conformément aux exigences de l'*évaluation environnementale de portée générale relative à des projets d'intendance de ressources et de développement d'installations* (MRN, 2002). Par ailleurs, le nouveau projet de ligne d'interconnexion Est-Ouest de NextBridge et tous les travaux qui y sont associés, y compris le projet d'expansion du PT de Marathon, doivent aussi être approuvés par la Commission de l'énergie de l'Ontario (CEO). Sous réserve du respect des formalités à remplir et de l'autorisation de la CEO, les travaux pourraient débuter vers la mi-2018, la date d'entrée en exploitation du projet étant prévue pour décembre 2020.

Nous souhaitons connaître vos commentaires

Le processus d'évaluation environnementale de portée générale offre aux communautés des Premières nations et Métis, au public, aux entreprises, aux organismes gouvernementaux et à d'autres parties intéressées l'occasion de participer et de communiquer leurs commentaires. Hydro One organisera une séance d'information publique cet été à Marathon pour partager d'autres informations sur le projet et pour recueillir les commentaires des résidents locaux et d'autres intervenants. L'avis de séance d'information publique sera publié dans les journaux locaux et distribué aux habitants de la région. Vos questions et commentaires sont très importants. Nous vous invitons à nous les communiquer.

Autres renseignements

Si vous désirez obtenir d'autres renseignements, ou si vous voulez recevoir des mises à jour sur ce projet par courriel, n'hésitez pas à contacter :

Stephanie Hodsoll
Relations publiques, Hydro One
Tél. : 1-877-345-6799
Courriel : Community.Relations@HydroOne.com
www.HydroOne.com/Projects/MarathonTS

hydro one

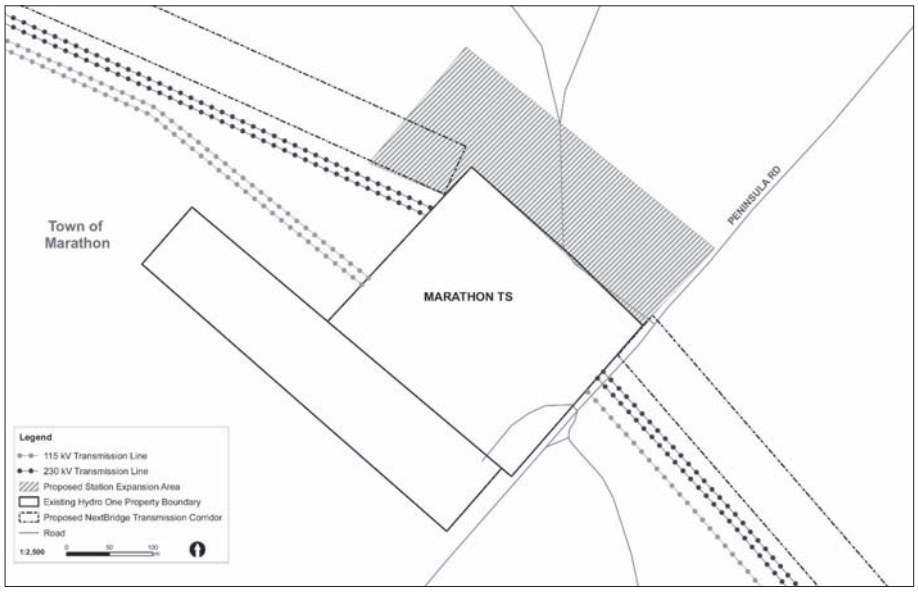
PUBLIC INFORMATION CENTRE

You're invited to a PUBLIC INFORMATION CENTRE for the proposed expansion of Marathon Transformer Station

Earlier this year, Hydro One Networks Inc. (Hydro One) initiated a Class Environmental Assessment (EA) to expand the existing Marathon Transformer Station (TS), located at 217 Peninsula Road in the Town of Marathon. This project is required to connect NextBridge Infrastructure's proposed new East-West Tie transmission line to the station. A Class EA is a streamlined planning process that has proven effective in ensuring that minor transmission projects that have a predictable range of effects have feasible environmental mitigation and/or protection measures in place.

To accommodate the proposed station expansion, the existing Marathon TS would be expanded by approximately five hectares onto adjacent Crown land as shown on the map. Hydro One will seek to acquire the land from the Ministry of Natural Resources and Forestry (MNRF).

In addition, the access road to Shack Lake will require relocation to accommodate the proposed station expansion. Hydro One will consult with the MNRF, Town of Marathon and local groups to determine potential alternative locations for a new access road off of Peninsula Road.



WE'D LIKE TO HEAR FROM YOU

The Class EA process provides opportunities for consultation, and your feedback is very important to us. We invite you to drop by our upcoming Public Information Centre to learn more about the project, environmental studies and considerations, and to discuss the relocation of the Shack Lake access road.

Please join us on:

Tuesday, July 25th, 2017
4:00 p.m. – 8:00 p.m.
Marathon Centre Mall, near the Extra Foods entrance
2 Hemlo Drive, Marathon

For more information

If you have any questions or wish to be added to the project contact list, please contact:

Stephanie Hodsoll
Community Relations Officer
t: 1-877-345-6799
e Community.Relations@HydroOne.com
www.HydroOne.com/Projects/MarathonTS

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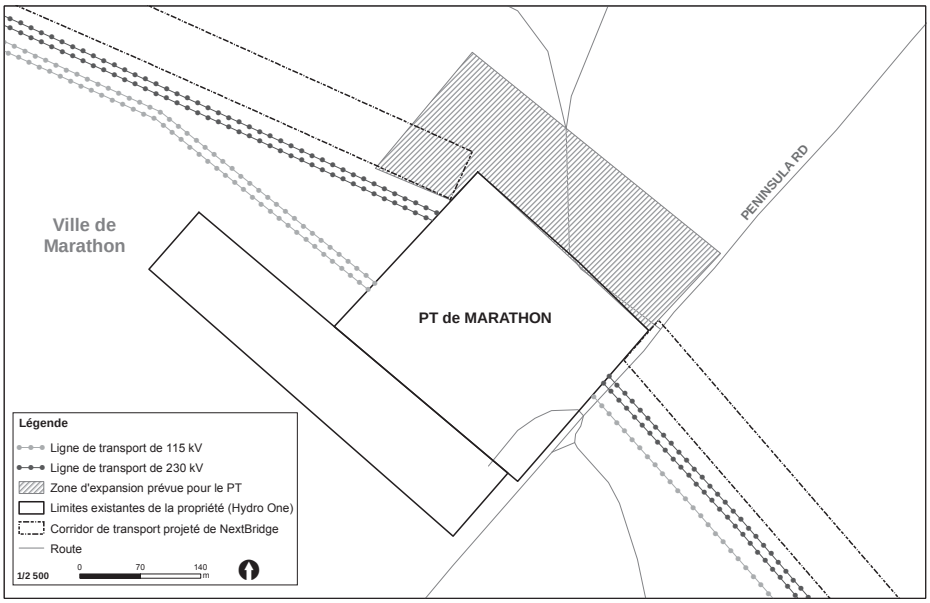
Partners in Powerful Communities

Invitation à une SÉANCE D'INFORMATION PUBLIQUE au sujet du projet d'expansion du poste de transformation de Marathon

Hydro One Networks Inc. (Hydro One) a récemment entrepris une évaluation environnementale de portée générale concernant l'expansion du poste de transformation (PT) de Marathon, situé dans la municipalité de Marathon, au 217 Peninsula Road. Ces travaux sont nécessaires pour relier la nouvelle ligne d'interconnexion est-ouest projetée de NextBridge Infrastructure au PT. L'évaluation environnementale de portée générale est un processus de planification simplifié qui permet de veiller à ce que les petits projets touchant des lignes de transport ayant une gamme d'effets prévisibles fassent l'objet de mesures réalisables d'atténuation ou de protection de l'environnement.

Dans le cadre de cette expansion, le PT de Marathon existant serait agrandi sur une zone d'environ cinq hectares sur les terres de la Couronne adjacentes indiquées dans la carte. Hydro One déposera une demande d'acquisition pour ces terres au ministère des Richesses naturelles et des Forêts (MRNF).



De plus, la route d'accès au lac Shack serait déplacée pour faire place à l'expansion proposée du PT. Hydro One consultera le MRNF, la Ville de Marathon et les groupes locaux afin d'examiner d'autres emplacements possibles pour la nouvelle route d'accès à partir de Peninsula Road.

NOUS SOUHAITONS AVOIR VOS COMMENTAIRES

Une évaluation environnementale de portée générale offre la possibilité de participer et de faire des commentaires, qui sont très importants pour nous. Nous vous invitons à la séance d'information publique pour en savoir plus sur le projet et sur les études et considérations environnementales connexes et discuter du déplacement de la route d'accès au lac Shack.

Veuillez vous joindre à nous le :

Mardi 25 juillet 2017
De 16 h à 20 h
Marathon Centre Mall, près de l'entrée d'Extra Foods
2 Hemlo Drive, Marathon

Autres renseignements

Si vous avez des questions ou voulez qu'on ajoute votre nom à la liste de diffusion du projet, n'hésitez pas à contacter :

Stephanie Hodsoll
Agente des relations publiques
Tél. : 1 877 345-6799
Courriel : Community.Relations@HydroOne.com
www.HydroOne.com/Projects/MarathonTS

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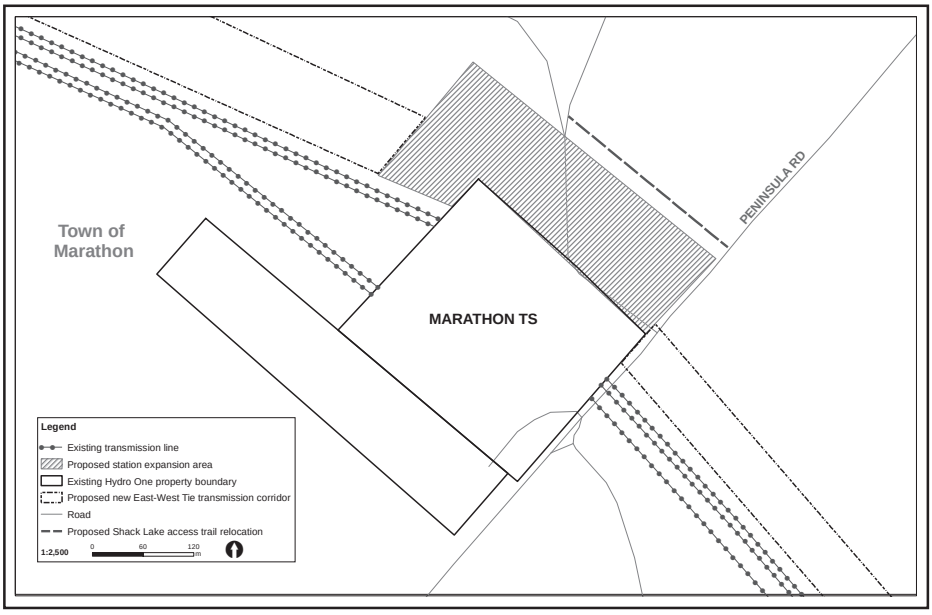
FINAL NOTIFICATION AND DRAFT ESR REVIEW PERIOD

NOTICE OF COMPLETION OF DRAFT ENVIRONMENTAL STUDY REPORT
Marathon Transformer Station Expansion

Hydro One Networks Inc. (Hydro One) has completed a draft Environmental Study Report (ESR) to expand the existing Marathon Transformer Station (TS), located at 217 Peninsula Road in the Town of Marathon. This undertaking is required to connect the proposed new East-West Tie transmission line to the station.



To accommodate the new line, the existing Marathon TS would have to be expanded by approximately five hectares onto adjacent Crown land as shown on the map. Hydro One will seek to acquire the land from the Ministry of Natural Resources and Forestry (MNRF).

In addition, the access trail to Shack Lake would have to be relocated to accommodate the proposed station expansion. Hydro One has consulted with the MNRF, Town of Marathon and local groups to determine an alternative location for a new access trail off of Peninsula Road as shown on the map. The relocated access trail would be built prior to the station work commencing, ensuring continual access to Shack Lake.

The proposed project is subject to the Class Environmental Assessment (EA) for Minor Transmission Facilities, an approved planning process under the *Environmental Assessment Act*. The proposed project is also subject to the requirements set out in the MNRF's Class EA for Resource Stewardship and Development Projects. Subject to the outcome of the Class EA, construction could begin as early as mid-2018.

HOW TO PROVIDE YOUR INPUT

In accordance with the Class EA process, Hydro One is providing notice of its intent to proceed with the proposed Project. The draft ESR will be available for a 30-day public review and comment period from March 9, 2018 to April 9, 2018. The draft ESR can be viewed at www.HydroOne.com/Projects/MarathonTS, and a hard copy will be available at the following location:

Town of Marathon Municipal Office
4 Hemlo Drive, Marathon, ON, P0T 2E0
(807) 229-1340

Written comments or questions on the draft ESR must be received by Hydro One no later than 4:30 p.m. on April 9, 2018. Please address your correspondence to:

Yu San Ong, Environmental Planner
483 Bay Street, North Tower, 12th Floor
Toronto ON, M5G 2P5
Email: Community.Relations@HydroOne.com

Hydro One will respond to and make best efforts to resolve any issues raised during the review period. If no issues are raised during the review period, Hydro One will finalize the ESR and file it with the Ministry of the Environment and Climate Change (MOECC). The project will be considered acceptable and may proceed as outlined in the ESR.

The *Environmental Assessment Act* has provisions for interested parties to ask for a higher level of assessment for a Class EA project if they feel that outstanding issues have not been adequately addressed by Hydro One. This higher level of assessment is referred to as a Part II Order request and must be addressed in writing to the Minister of the Environment and Climate Change and the Director of the Environmental Approvals Branch. Part II Order requests must be received by 4:30 p.m. on April 9, 2018 at these addresses:

Minister of the Environment and Climate Change
77 Wellesley Street West, 11th Floor, Ferguson Block
Toronto, ON, M7A 2T5
Email: Minister.MOECC@ontario.ca

Director, Environmental Assessment and Permissions Branch, MOECC
135 St. Clair West, 1st Floor, Toronto, ON, M4V 1P5
Email: MOECCpermissions@ontario.ca

Please note that a duplicate copy of a Part II Order request must also be sent to Hydro One at the address noted.

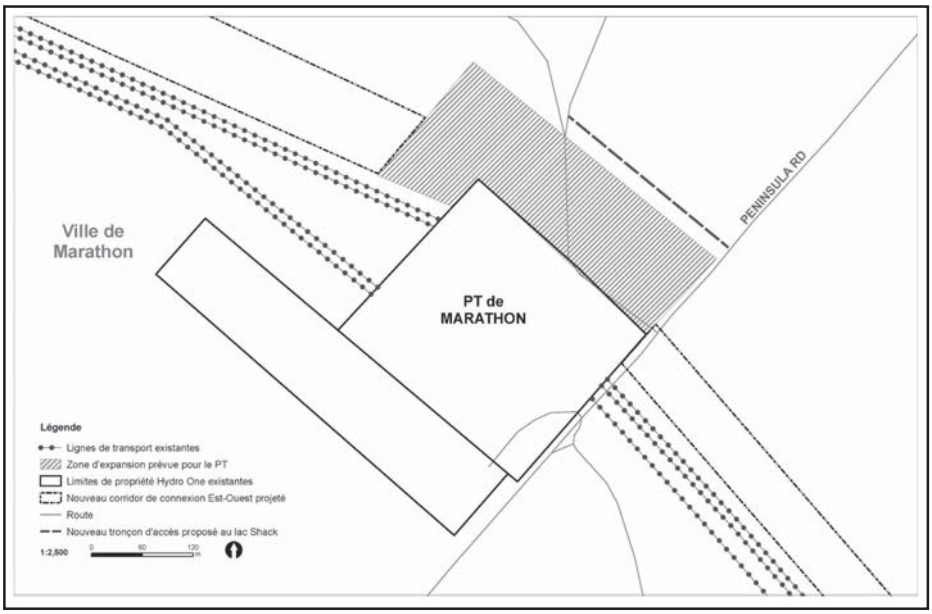
For more information please call 1-877-345-6799 or visit www.HydroOne.com/Projects/MarathonTS.

hydro one

AVIS D'ACHÈVEMENT DU RAPPORT D'ÉVALUATION ENVIRONNEMENTALE PROVISOIRE

Projet d'expansion du poste de transformation de Marathon

Hydro One Networks Inc. (Hydro One) a terminé le rapport d'évaluation environnementale (EE) provisoire portant sur le projet d'expansion du poste de transformation (PT) de Marathon; celui-ci est situé au 217 Peninsula Road, dans la ville de Marathon. L'expansion est nécessaire pour raccorder au poste la nouvelle ligne de connexion Est-Ouest proposée.



Pour recevoir la nouvelle ligne, le poste de transformation devrait être agrandi sur une zone d'environ cinq (5) hectares prise sur des terres de la Couronne adjacentes (voir la carte). Hydro One déposera une demande auprès du ministère des Richesses naturelles et des Forêts (MRNF) en vue d'acquérir la parcelle de terrain public.

De plus, le tronçon de départ de l'accès au lac Shack serait déplacé pour permettre l'expansion proposée. Hydro One a consulté le MRNF, la Ville de Marathon et des groupes locaux pour trouver un autre emplacement pour le tronçon de départ de l'accès, toujours à partir de Peninsula Road. Le nouveau tronçon serait construit avant le début des travaux d'agrandissement du poste afin d'assurer l'accès continu au lac Shack.

Le projet d'expansion du PT est assujetti à l'*évaluation environnementale (EE) de portée générale relative aux petites installations de transport d'électricité;* celle-ci est un processus de planification des projets approuvé aux termes de la *Loi sur les évaluations environnementales*. Le projet est aussi assujetti aux exigences de l'*évaluation environnementale de portée générale relative à des projets d'intendance de ressources et de développement d'installations*. Sous réserve des conclusions de l'EE de portée générale, les travaux pourraient débuter vers la mi-2018.

COMMENT COMMUNIQUER VOS COMMENTAIRES

Conformément au processus d'EE de portée générale, Hydro One donne ici avis de son intention d'entreprendre le projet d'expansion. Le rapport d'EE provisoire sera mis à la disposition du public qui pourra l'examiner et fournir des commentaires écrits pendant une période de 30 jours, du 9 mars 2018 au 9 avril 2018. Le rapport peut être consulté à www.HydroOne.com/Projects/MarathonTS, et une copie papier est disponible à l'adresse suivante :

Bureau de la Ville de Marathon
4 Hemlo Drive, Marathon ON P0T 2E0
807 229-1340

Hydro One doit recevoir les questions et commentaires sur le rapport d'EE provisoire au plus tard le 9 avril 2018, à 16 h 30. Veuillez les envoyer à :

Yu San Ong, Planificatrice environnementale
483, rue Bay, Tour Nord, 12e étage
Toronto ON M5G 2P5
Courriel : Community.Relations@HydroOne.com

Hydro One répondra aux préoccupations soulevées pendant la période d'examen et fera tout son possible pour les résoudre.

Si aucune préoccupation n'est présentée, Hydro One finalisera le rapport d'EE et le déposera auprès du ministère de l'Environnement et de l'Action en matière de changement climatique (MEACC). Le projet sera jugé acceptable et sera prêt à être réalisé conformément au rapport d'EE.

La *Loi sur les évaluations environnementales* prévoit des dispositions selon lesquelles des parties intéressées peuvent demander un renvoi du projet à un niveau supérieur d'évaluation si elles jugent que des préoccupations soulevées n'ont pas été résolues de manière satisfaisante par Hydro One.

Pour cela, la partie présente par écrit une demande d'arrêté au titre de la Partie II de la Loi au ministre de l'Environnement et au directeur des évaluations et des permissions environnementales. Toute demande d'arrêté devra parvenir au plus tard le 9 avril 2018, à 16 h 30, aux adresses suivantes :

Ministre de l'Environnement et de
l'Action en matière de changement climatique
77, rue Wellesley Ouest, 11e étage, Édifice Ferguson
Toronto ON M7A 2T5
Courriel : Minister.MOECC@ontario.ca

Directeur, Direction des évaluations et
des permissions environnementales (MEACC)
135, rue St. Clair Ouest, rez-de-chaussée, Toronto ON M4V 1P5
Courriel : MOECCpermissions@ontario.ca

À NOTER : une copie de la demande d'arrêté au titre de la Partie II doit aussi être envoyée à Hydro One à l'adresse de Toronto indiquée plus haut.

Pour d'autres renseignements, appelez-nous au 1 877 345-6799, ou visitez www.HydroOne.com/Projects/MarathonTS.

hydro one

FIRST NATIONS AND MÉTIS COMMUNITIES

Hydro One Networks Inc.
483 Bay Street
North Tower, 12th Floor
Toronto, Ontario, M5G 2P5
www.HydroOne.com

Tel: 416-345-5031
Email: Yusan.Ong@HydroOne.com

Yu San Ong
Environmental Planner, Environmental Services

March 5, 2018

[redacted]

Notice of Completion of Draft Environmental Study Report - Class Environmental Assessment for the Proposed Marathon Transformer Station Expansion

Dear [redacted],

This letter is to advise you that Hydro One Networks Inc. (Hydro One) has completed a draft Environmental Study Report (ESR) as part of the Class Environmental Assessment (EA) for the proposed Marathon Transformer Station Expansion project.

The proposed undertaking consists of expanding the existing Marathon Transformer Station (TS), located at 217 Peninsula Road in the Town of Marathon, by approximately five hectares onto adjacent Crown land. Hydro One will seek to acquire this land from the Ministry of Natural Resources and Forestry (MNRF). This Project is required to connect the proposed new East-West Tie transmission line to the station.

This environmental assessment was completed in accordance with the Class EA for Minor Transmission Facilities (Hydro One, 2016), under Ontario's *Environmental Assessment Act*. The Marathon TS Expansion project is also subject to the requirements set out in the MNRF's Class EA for Resource Stewardship and Development Projects (MNR, 2002). The draft ESR will be available for a 30-day review and comment period from **Friday, March 9, 2018 to Monday, April 9, 2018 at 4:00 pm.** The draft ESR is available on the project website at:
https://www.hydroone.com/Projects/MarathonTS

Please find enclosed a copy of the newspaper advertisement, which will be published in the *Marathon Mercury* on March 6, 2018 and March 13, 2018.

As per the request of the Minister of the Environment and Climate Change, information regarding the *Freedom of Information and Protection of Privacy Act* is included and can be viewed below.

If you have any questions, or would like additional information regarding the project, please contact me at (416) 345-5031 or Yusan.Ong@HydroOne.com.

Sincerely,

Yu San Ong, Environmental Planner
Environmental Services

cc: Christine Goulais, Manager, Indigenous Relations, Hydro One
Tausha Esquega, Senior Advisor, Indigenous Relations, Hydro One

Attachment (1): Newspaper Advertisements – French and English

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FEDERAL, PROVINCIAL & MUNCIPAL GOVERNMENT REPRESENTATIVES & AGENCIES

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POTENTIALLY AFFECTED & INTERESTED PERSONS & INTEREST GROUPS

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Yu San Ong
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March 5, 2018

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PROPERTY OWNERS

Hydro One Networks Inc.
Community Relations
483 Bay Street
South Tower, 6th Floor
Toronto, ON M5G 2P5

Tel: 1-877-345-6799
Community.Relations@HydroOne.com

www.HydroOne.com

March 5, 2018

[redacted]

To Whom It May Concern:

Re: [redacted]

Following up on correspondence from May 2017 about our proposed Marathon Transformer Station expansion project, we're writing today to let you know that we have completed a draft Environmental Study Report (ESR) as part of the Class Environmental Assessment that has been undertaken. You may recall that this station expansion project is required to connect the proposed new East-West Tie transmission line to the station.

The draft ESR will be available for a 30-day review and comment period from Friday, March 9, 2018 to Monday, April 9, 2018 at 4:00 pm. Further information is available in the attached advertisement, which will be published in the *Marathon Mercury* on Tuesday, March 6, 2018, and Tuesday, March 13, 2018.

We are aware that the access trail to Shack Lake is used by recreational enthusiasts; please note that it will be relocated to accommodate the proposed station expansion as shown on the map in the newspaper advertisement. The relocation of the access trail will occur prior to any station construction work to ensure continued access to Shack Lake. Hydro One has consulted with the Ministry of Natural Resources and Forestry, Town of Marathon and local groups to determine its new location off of Peninsula Road.

For more information, please visit the project website at:
https://www.hydroone.com/Projects/MarathonTS

If you have any questions or comments at this time, please don't hesitate to contact me.

Yours truly,

Stephanie Hodsoll

Community Relations Officer
Hydro One Networks Inc.
t: 416-345-6799
e: Community.Relations@HydroOne.com

FINAL NOTIFICATION

FIRST NATIONS AND MÉTIS COMMUNITIES

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March 5, 2018

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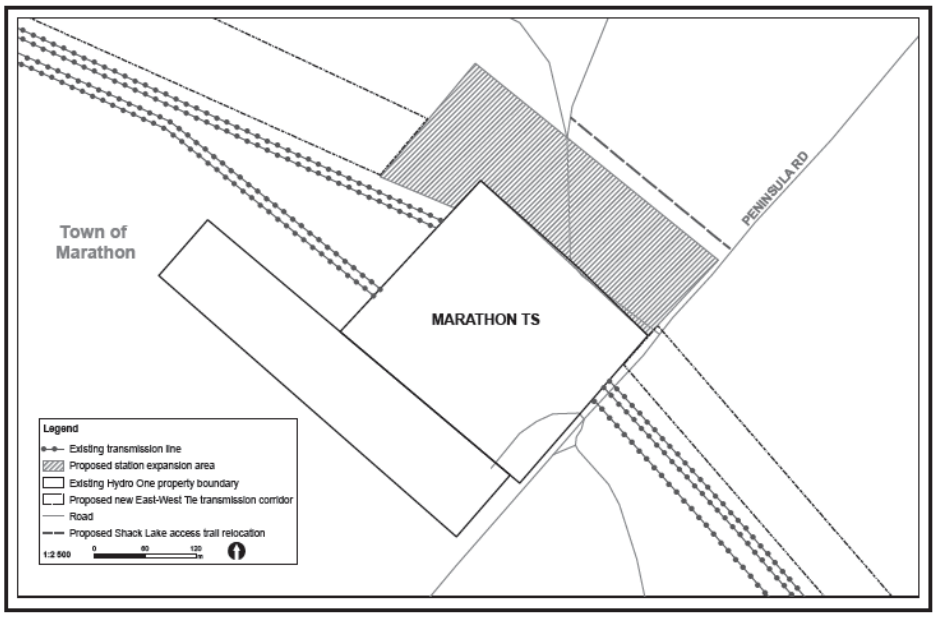
NOTICE OF COMPLETION OF DRAFT ENVIRONMENTAL STUDY REPORT
Marathon Transformer Station Expansion

Hydro One Networks Inc. (Hydro One) has completed a draft Environmental Study Report (ESR) to expand the existing Marathon Transformer Station (TS), located at 217 Peninsula Road in the Town of Marathon. This undertaking is required to connect the proposed new East-West Tie transmission line to the station.



To accommodate the new line, the existing Marathon TS would have to be expanded by approximately five hectares onto adjacent Crown land as shown on the map. Hydro One will seek to acquire the land from the Ministry of Natural Resources and Forestry (MNRF).

In addition, the access trail to Shack Lake would have to be relocated to accommodate the proposed station expansion. Hydro One has consulted with the MNRF, Town of Marathon and local groups to determine an alternative location for a new access trail off of Peninsula Road as shown on the map. The relocated access trail would be built prior to the station work commencing, ensuring continual access to Shack Lake.

The proposed project is subject to the Class Environmental Assessment (EA) for Minor Transmission Facilities, an approved planning process under the *Environmental Assessment Act*. The proposed project is also subject to the requirements set out in the MNRF's Class EA for Resource Stewardship and Development Projects. Subject to the outcome of the Class EA, construction could begin as early as mid-2018.

HOW TO PROVIDE YOUR INPUT

In accordance with the Class EA process, Hydro One is providing notice of its intent to proceed with the proposed Project. The draft ESR will be available for a 30-day public review and comment period from March 9, 2018 to April 9, 2018. The draft ESR can be viewed at www.HydroOne.com/Projects/MarathonTS, and a hard copy will be available at the following location:

Town of Marathon Municipal Office
4 Hemlo Drive, Marathon, ON, P0T 2E0
(807) 229-1340

Written comments or questions on the draft ESR must be received by Hydro One no later than 4:30 p.m. on April 9, 2018. Please address your correspondence to:

Yu San Ong, Environmental Planner
483 Bay Street, North Tower, 12th Floor
Toronto ON, M5G 2P5
Email: Community.Relations@HydroOne.com

Hydro One will respond to and make best efforts to resolve any issues raised during the review period. If no issues are raised during the review period, Hydro One will finalize the ESR and file it with the Ministry of the Environment and Climate Change (MOECC). The project will be considered acceptable and may proceed as outlined in the ESR.

The *Environmental Assessment Act* has provisions for interested parties to ask for a higher level of assessment for a Class EA project if they feel that outstanding issues have not been adequately addressed by Hydro One. This higher level of assessment is referred to as a Part II Order request and must be addressed in writing to the Minister of the Environment and Climate Change and the Director of the Environmental Approvals Branch. Part II Order requests must be received by 4:30 p.m. on April 9, 2018 at these addresses:

Minister of the Environment and Climate Change
77 Wellesley Street West, 11th Floor, Ferguson Block
Toronto, ON, M7A 2T5
Email: Minister.MOECC@ontario.ca

Director, Environmental Assessment and Permissions Branch, MOECC
135 St. Clair West, 1st Floor, Toronto, ON, M4V 1P5
Email: MOECCpermissions@ontario.ca

Please note that a duplicate copy of a Part II Order request must also be sent to Hydro One at the address noted.

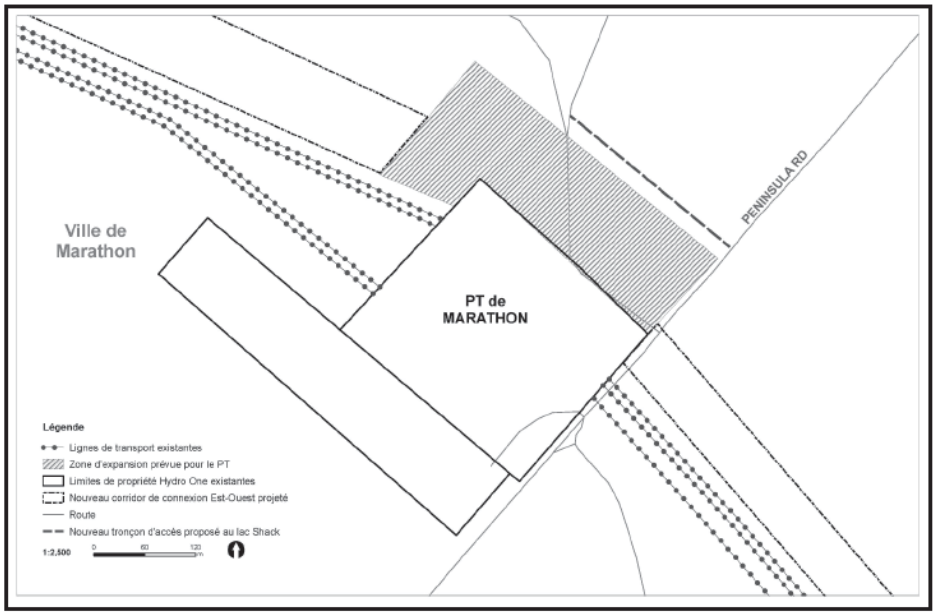
For more information please call 1-877-345-6799 or visit www.HydroOne.com/Projects/MarathonTS.

hydro one

AVIS D'ACHÈVEMENT DU RAPPORT D'ÉVALUATION ENVIRONNEMENTALE PROVISOIRE

Projet d'expansion du poste de transformation de Marathon

Hydro One Networks Inc. (Hydro One) a terminé le rapport d'évaluation environnementale (EE) provisoire portant sur le projet d'expansion du poste de transformation (PT) de Marathon; celui-ci est situé au 217 Peninsula Road, dans la ville de Marathon. L'expansion est nécessaire pour raccorder au poste la nouvelle ligne de connexion Est-Ouest proposée.



Pour recevoir la nouvelle ligne, le poste de transformation devrait être agrandi sur une zone d'environ cinq (5) hectares prise sur des terres de la Couronne adjacentes (voir la carte). Hydro One déposera une demande auprès du ministère des Richesses naturelles et des Forêts (MRNF) en vue d'acquérir la parcelle de terrain public.

De plus, le tronçon de départ de l'accès au lac Shack serait déplacé pour permettre l'expansion proposée. Hydro One a consulté le MRNF, la Ville de Marathon et des groupes locaux pour trouver un autre emplacement pour le tronçon de départ de l'accès, toujours à partir de Peninsula Road. Le nouveau tronçon serait construit avant le début des travaux d'agrandissement du poste afin d'assurer l'accès continu au lac Shack.

Le projet d'expansion du PT est assujetti à l'*évaluation environnementale (EE) de portée générale relative aux petites installations de transport d'électricité;* celle-ci est un processus de planification des projets approuvé aux termes de la *Loi sur les évaluations environnementales*. Le projet est aussi assujetti aux exigences de l'*évaluation environnementale de portée générale relative à des projets d'intendance de ressources et de développement d'installations*. Sous réserve des conclusions de l'EE de portée générale, les travaux pourraient débuter vers la mi-2018.

COMMENT COMMUNIQUER VOS COMMENTAIRES

Conformément au processus d'EE de portée générale, Hydro One donne ici avis de son intention d'entreprendre le projet d'expansion. Le rapport d'EE provisoire sera mis à la disposition du public qui pourra l'examiner et fournir des commentaires écrits pendant une période de 30 jours, du 9 mars 2018 au 9 avril 2018. Le rapport peut être consulté à www.HydroOne.com/Projects/MarathonTS, et une copie papier est disponible à l'adresse suivante :

Bureau de la Ville de Marathon
4 Hemlo Drive, Marathon ON P0T 2E0
807 229-1340

Hydro One doit recevoir les questions et commentaires sur le rapport d'EE provisoire au plus tard le 9 avril 2018, à 16 h 30. Veuillez les envoyer à :

Yu San Ong, Planificatrice environnementale
483, rue Bay, Tour Nord, 12e étage
Toronto ON M5G 2P5
Courriel : Community.Relations@HydroOne.com

Hydro One répondra aux préoccupations soulevées pendant la période d'examen et fera tout son possible pour les résoudre.

Si aucune préoccupation n'est présentée, Hydro One finalisera le rapport d'EE et le déposera auprès du ministère de l'Environnement et de l'Action en matière de changement climatique (MEACC). Le projet sera jugé acceptable et sera prêt à être réalisé conformément au rapport d'EE.

La *Loi sur les évaluations environnementales* prévoit des dispositions selon lesquelles des parties intéressées peuvent demander un renvoi du projet à un niveau supérieur d'évaluation si elles jugent que des préoccupations soulevées n'ont pas été résolues de manière satisfaisante par Hydro One.

Pour cela, la partie présente par écrit une demande d'arrêté au titre de la Partie II de la Loi au ministre de l'Environnement et au directeur des évaluations et des permissions environnementales. Toute demande d'arrêté devra parvenir au plus tard le 9 avril 2018, à 16 h 30, aux adresses suivantes :

Ministre de l'Environnement et de
l'Action en matière de changement climatique
77, rue Wellesley Ouest, 11e étage, Édifice Ferguson
Toronto ON M7A 2T5
Courriel : Minister.MOECC@ontario.ca

Directeur, Direction des évaluations et
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March 5, 2018

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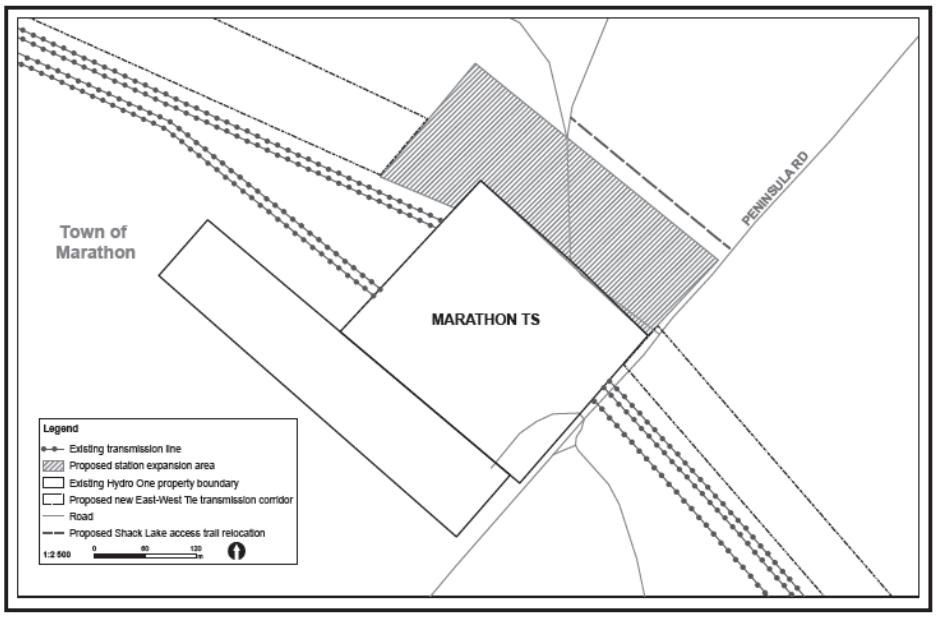

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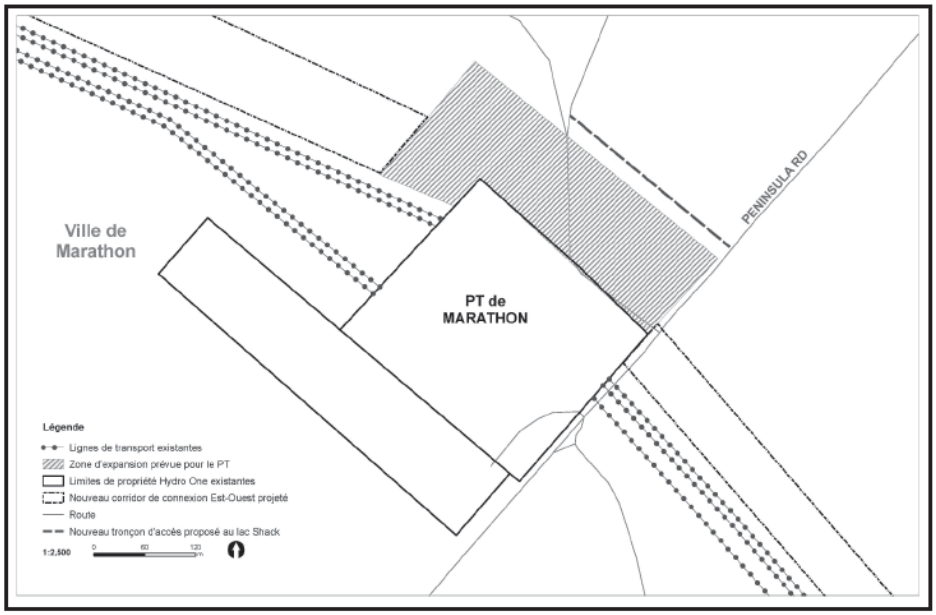

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De plus, le tronçon de départ de l'accès au lac Shack serait déplacé pour permettre l'expansion proposée. Hydro One a consulté le MRNF, la Ville de Marathon et des groupes locaux pour trouver un autre emplacement pour le tronçon de départ de l'accès, toujours à partir de Peninsula Road. Le nouveau tronçon serait construit avant le début des travaux d'agrandissement du poste afin d'assurer l'accès continu au lac Shack.

Le projet d'expansion du PT est assujetti à l'*évaluation environnementale (EE) de portée générale relative aux petites installations de transport d'électricité;* celle-ci est un processus de planification des projets approuvé aux termes de la *Loi sur les évaluations environnementales*. Le projet est aussi assujetti aux exigences de l'*évaluation environnementale de portée générale relative à des projets d'intendance de ressources et de développement d'installations*. Sous réserve des conclusions de l'EE de portée générale, les travaux pourraient débuter vers la mi-2018.

COMMENT COMMUNIQUER VOS COMMENTAIRES

Conformément au processus d'EE de portée générale, Hydro One donne ici avis de son intention d'entreprendre le projet d'expansion. Le rapport d'EE provisoire sera mis à la disposition du public qui pourra l'examiner et fournir des commentaires écrits pendant une période de 30 jours, du 9 mars 2018 au 9 avril 2018. Le rapport peut être consulté à www.HydroOne.com/Projects/MarathonTS, et une copie papier est disponible à l'adresse suivante :

Bureau de la Ville de Marathon
4 Hemlo Drive, Marathon ON P0T 2E0
807 229-1340

Hydro One doit recevoir les questions et commentaires sur le rapport d'EE provisoire au plus tard le 9 avril 2018, à 16 h 30. Veuillez les envoyer à :

Yu San Ong, Planificatrice environnementale
483, rue Bay, Tour Nord, 12e étage
Toronto ON M5G 2P5
Courriel : Community.Relations@HydroOne.com

Hydro One répondra aux préoccupations soulevées pendant la période d'examen et fera tout son possible pour les résoudre.

Si aucune préoccupation n'est présentée, Hydro One finalisera le rapport d'EE et le déposera auprès du ministère de l'Environnement et de l'Action en matière de changement climatique (MEACC). Le projet sera jugé acceptable et sera prêt à être réalisé conformément au rapport d'EE.

La *Loi sur les évaluations environnementales* prévoit des dispositions selon lesquelles des parties intéressées peuvent demander un renvoi du projet à un niveau supérieur d'évaluation si elles jugent que des préoccupations soulevées n'ont pas été résolues de manière satisfaisante par Hydro One.

Pour cela, la partie présente par écrit une demande d'arrêté au titre de la Partie II de la Loi au ministre de l'Environnement et au directeur des évaluations et des permissions environnementales. Toute demande d'arrêté devra parvenir au plus tard le 9 avril 2018, à 16 h 30, aux adresses suivantes :

Ministre de l'Environnement et de
l'Action en matière de changement climatique
77, rue Wellesley Ouest, 11e étage, Édifice Ferguson
Toronto ON M7A 2T5
Courriel : Minister.MOECC@ontario.ca

Directeur, Direction des évaluations et
des permissions environnementales (MEACC)
135, rue St. Clair Ouest, rez-de-chaussée, Toronto ON M4V 1P5
Courriel : MOECCpermissions@ontario.ca

À NOTER : une copie de la demande d'arrêté au titre de la Partie II doit aussi être envoyée à Hydro One à l'adresse de Toronto indiquée plus haut.

Pour d'autres renseignements, appelez-nous au 1 877 345-6799, ou visitez www.HydroOne.com/Projects/MarathonTS.

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POTENTIALLY AFFECTED & INTERESTED PERSONS & INTEREST GROUPS

Hydro One Networks Inc.
483 Bay Street
North Tower, 12th Floor
Toronto, Ontario, M5G 2P5
www.HydroOne.com

Tel: 416-345-5031
Email: Yusan.Ong@HydroOne.com

Yu San Ong
Environmental Planner, Environmental Services

March 5, 2018

[redacted]

Notice of Completion of Draft Environmental Study Report - Class Environmental Assessment for the Proposed Marathon Transformer Station Expansion

Dear [redacted],

This letter is to advise you that Hydro One Networks Inc. (Hydro One) has completed a draft Environmental Study Report (ESR) as part of the Class Environmental Assessment (EA) for the proposed Marathon Transformer Station Expansion project.

The proposed undertaking consists of expanding the existing Marathon Transformer Station (TS), located at 217 Peninsula Road in the Town of Marathon, by approximately five hectares onto adjacent Crown land. Hydro One will seek to acquire this land from the Ministry of Natural Resources and Forestry (MNRF). This Project is required to connect the proposed new East-West Tie transmission line to the station.

This environmental assessment was completed in accordance with the Class EA for Minor Transmission Facilities (Hydro One, 2016), under Ontario's *Environmental Assessment Act*. The Marathon TS Expansion project is also subject to the requirements set out in the MNRF's Class EA for Resource Stewardship and Development Projects (MNR, 2002). The draft ESR will be available for a 30-day review and comment period from **Friday, March 9, 2018 to Monday, April 9, 2018 at 4:00 pm.** The draft ESR is available on the project website at:
https://www.hydroone.com/Projects/MarathonTS

Please find enclosed a copy of the newspaper advertisement, which will be published in the *Marathon Mercury* on March 6, 2018 and March 13, 2018.

As per the request of the Minister of the Environment and Climate Change, information regarding the *Freedom of Information and Protection of Privacy Act* is included and can be viewed below.

If you have any questions, or would like additional information regarding the project, please contact me at (416) 345-5031 or Yusan.Ong@HydroOne.com.

Sincerely,

Yu San Ong, Environmental Planner
Environmental Services

Attachment (1): Newspaper Advertisements – French and English

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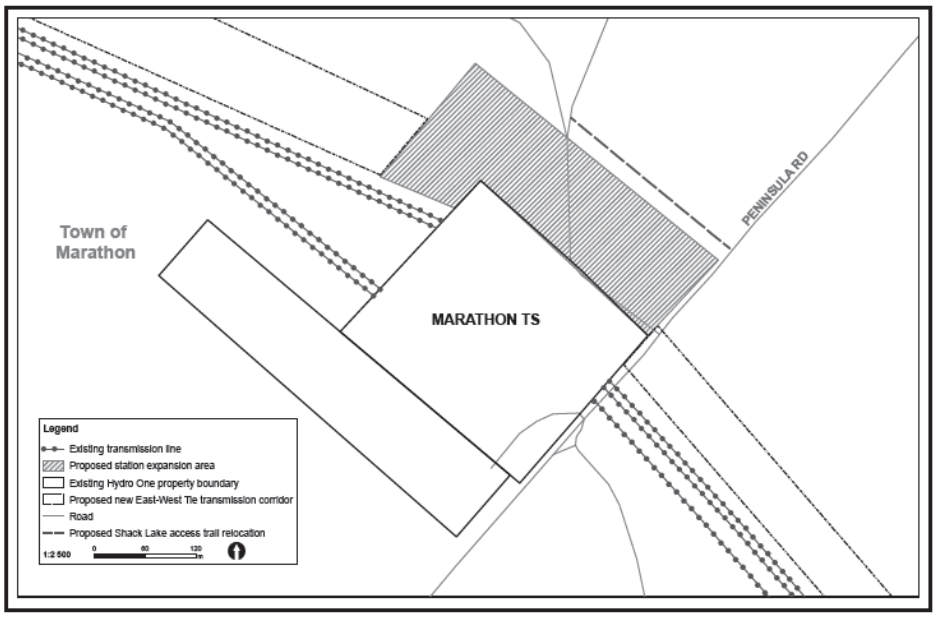
Freedom of Information and Protection of Privacy Act

All personal information included in a submission – such as name, address, telephone number and property location – is collected, maintained and disclosed by the Ministry of the Environment and Climate Change for the purpose of transparency and consultation. The information is collected under the authority of the *Environmental Assessment Act* or is collected and maintained for the purpose of creating a record that is available to the general public as described in s. 37 of the *Freedom of Information and Protection of Privacy Act*. Personal information you submit will become part of a public record that is available to the general public unless you request that your personal information remain confidential. For more information, please contact the Ministry of the Environment and Climate Change's Freedom of Information and Privacy Coordinator at 416-327-1434.

NOTICE OF COMPLETION OF DRAFT ENVIRONMENTAL STUDY REPORT
Marathon Transformer Station Expansion

Hydro One Networks Inc. (Hydro One) has completed a draft Environmental Study Report (ESR) to expand the existing Marathon Transformer Station (TS), located at 217 Peninsula Road in the Town of Marathon. This undertaking is required to connect the proposed new East-West Tie transmission line to the station.



To accommodate the new line, the existing Marathon TS would have to be expanded by approximately five hectares onto adjacent Crown land as shown on the map. Hydro One will seek to acquire the land from the Ministry of Natural Resources and Forestry (MNRF).

In addition, the access trail to Shack Lake would have to be relocated to accommodate the proposed station expansion. Hydro One has consulted with the MNRF, Town of Marathon and local groups to determine an alternative location for a new access trail off of Peninsula Road as shown on the map. The relocated access trail would be built prior to the station work commencing, ensuring continual access to Shack Lake.

The proposed project is subject to the Class Environmental Assessment (EA) for Minor Transmission Facilities, an approved planning process under the *Environmental Assessment Act*. The proposed project is also subject to the requirements set out in the MNRF's Class EA for Resource Stewardship and Development Projects. Subject to the outcome of the Class EA, construction could begin as early as mid-2018.

HOW TO PROVIDE YOUR INPUT

In accordance with the Class EA process, Hydro One is providing notice of its intent to proceed with the proposed Project. The draft ESR will be available for a 30-day public review and comment period from March 9, 2018 to April 9, 2018. The draft ESR can be viewed at www.HydroOne.com/Projects/MarathonTS, and a hard copy will be available at the following location:

Town of Marathon Municipal Office
4 Hemlo Drive, Marathon, ON, P0T 2E0
(807) 229-1340

Written comments or questions on the draft ESR must be received by Hydro One no later than 4:30 p.m. on April 9, 2018. Please address your correspondence to:

Yu San Ong, Environmental Planner
483 Bay Street, North Tower, 12th Floor
Toronto ON, M5G 2P5
Email: Community.Relations@HydroOne.com

Hydro One will respond to and make best efforts to resolve any issues raised during the review period. If no issues are raised during the review period, Hydro One will finalize the ESR and file it with the Ministry of the Environment and Climate Change (MOECC). The project will be considered acceptable and may proceed as outlined in the ESR.

The *Environmental Assessment Act* has provisions for interested parties to ask for a higher level of assessment for a Class EA project if they feel that outstanding issues have not been adequately addressed by Hydro One. This higher level of assessment is referred to as a Part II Order request and must be addressed in writing to the Minister of the Environment and Climate Change and the Director of the Environmental Approvals Branch. Part II Order requests must be received by 4:30 p.m. on April 9, 2018 at these addresses:

Minister of the Environment and Climate Change
77 Wellesley Street West, 11th Floor, Ferguson Block
Toronto, ON, M7A 2T5
Email: Minister.MOECC@ontario.ca

Director, Environmental Assessment and Permissions Branch, MOECC
135 St. Clair West, 1st Floor, Toronto, ON, M4V 1P5
Email: MOECCpermissions@ontario.ca

Please note that a duplicate copy of a Part II Order request must also be sent to Hydro One at the address noted.

For more information please call 1-877-345-6799 or visit www.HydroOne.com/Projects/MarathonTS.

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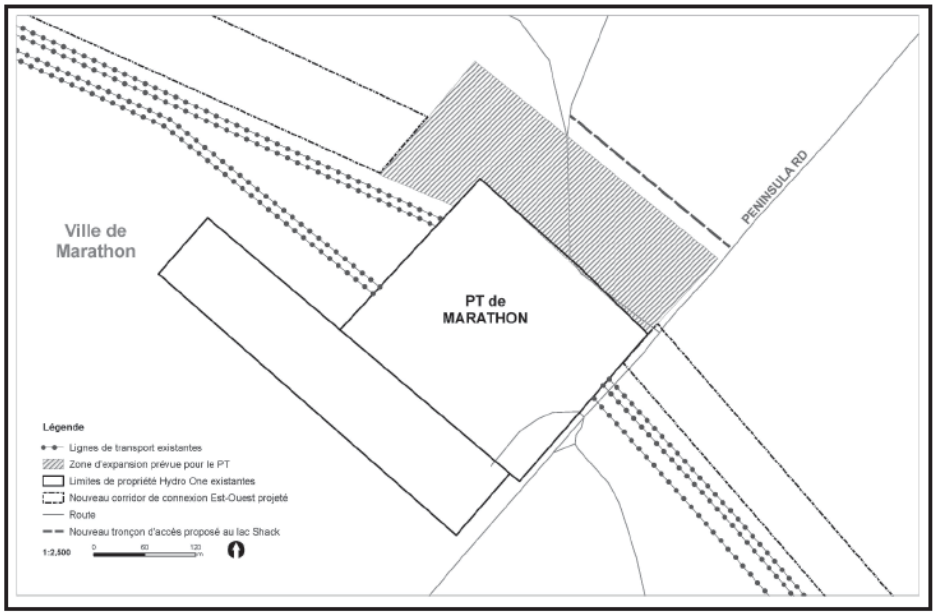
AVIS D'ACHÈVEMENT DU RAPPORT D'ÉVALUATION ENVIRONNEMENTALE PROVISOIRE

Projet d'expansion du poste de transformation de Marathon

Hydro One Networks Inc. (Hydro One) a terminé le rapport d'évaluation environnementale (EE) provisoire portant sur le projet d'expansion du poste de transformation (PT) de Marathon; celui-ci est situé au 217 Peninsula Road, dans la ville de Marathon. L'expansion est nécessaire pour raccorder au poste la nouvelle ligne de connexion Est-Ouest proposée.



Pour recevoir la nouvelle ligne, le poste de transformation devrait être agrandi sur une zone d'environ cinq (5) hectares prise sur des terres de la Couronne adjacentes (voir la carte). Hydro One déposera une demande auprès du ministère des Richesses naturelles et des Forêts (MRNF) en vue d'acquérir la parcelle de terrain public.

De plus, le tronçon de départ de l'accès au lac Shack serait déplacé pour permettre l'expansion proposée. Hydro One a consulté le MRNF, la Ville de Marathon et des groupes locaux pour trouver un autre emplacement pour le tronçon de départ de l'accès, toujours à partir de Peninsula Road. Le nouveau tronçon serait construit avant le début des travaux d'agrandissement du poste afin d'assurer l'accès continu au lac Shack.

Le projet d'expansion du PT est assujetti à l'*évaluation environnementale (EE) de portée générale relative aux petites installations de transport d'électricité;* celle-ci est un processus de planification des projets approuvé aux termes de la *Loi sur les évaluations environnementales*. Le projet est aussi assujetti aux exigences de l'*évaluation environnementale de portée générale relative à des projets d'intendance de ressources et de développement d'installations*. Sous réserve des conclusions de l'EE de portée générale, les travaux pourraient débuter vers la mi-2018.

COMMENT COMMUNIQUER VOS COMMENTAIRES

Conformément au processus d'EE de portée générale, Hydro One donne ici avis de son intention d'entreprendre le projet d'expansion. Le rapport d'EE provisoire sera mis à la disposition du public qui pourra l'examiner et fournir des commentaires écrits pendant une période de 30 jours, du 9 mars 2018 au 9 avril 2018. Le rapport peut être consulté à www.HydroOne.com/Projects/MarathonTS, et une copie papier est disponible à l'adresse suivante :

Bureau de la Ville de Marathon
4 Hemlo Drive, Marathon ON P0T 2E0
807 229-1340

Hydro One doit recevoir les questions et commentaires sur le rapport d'EE provisoire au plus tard le 9 avril 2018, à 16 h 30. Veuillez les envoyer à :

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483, rue Bay, Tour Nord, 12e étage
Toronto ON M5G 2P5
Courriel : Community.Relations@HydroOne.com

Hydro One répondra aux préoccupations soulevées pendant la période d'examen et fera tout son possible pour les résoudre.

Si aucune préoccupation n'est présentée, Hydro One finalisera le rapport d'EE et le déposera auprès du ministère de l'Environnement et de l'Action en matière de changement climatique (MEACC). Le projet sera jugé acceptable et sera prêt à être réalisé conformément au rapport d'EE.

La *Loi sur les évaluations environnementales* prévoit des dispositions selon lesquelles des parties intéressées peuvent demander un renvoi du projet à un niveau supérieur d'évaluation si elles jugent que des préoccupations soulevées n'ont pas été résolues de manière satisfaisante par Hydro One.

Pour cela, la partie présente par écrit une demande d'arrêté au titre de la Partie II de la Loi au ministre de l'Environnement et au directeur des évaluations et des permissions environnementales. Toute demande d'arrêté devra parvenir au plus tard le 9 avril 2018, à 16 h 30, aux adresses suivantes :

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Pour d'autres renseignements, appelez-nous au 1 877 345-6799, ou visitez www.HydroOne.com/Projects/MarathonTS.

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PROPERTY OWNERS

Hydro One Networks Inc.
Community Relations
483 Bay Street
South Tower, 6th Floor
Toronto, ON M5G 2P5

Tel: 1-877-345-6799
Community.Relations@HydroOne.com

www.HydroOne.com

[redacted]

March 5, 2018

To Whom It May Concern:

Re: Your Property at [redacted]

Following up on correspondence from May 2017 about our proposed Marathon Transformer Station expansion project, we're writing today to let you know that we have completed a draft Environmental Study Report (ESR) as part of the Class Environmental Assessment that has been undertaken. You may recall that this station expansion project is required to connect the proposed new East-West Tie transmission line to the station.

The draft ESR will be available for a 30-day review and comment period from Friday, March 9, 2018 to Monday, April 9, 2018 at 4:00 pm. Further information is available in the attached advertisement, which will be published in the *Marathon Mercury* on Tuesday, March 6, 2018, and Tuesday, March 13, 2018.

We are aware that the access trail to Shack Lake is used by recreational enthusiasts; please note that it will be relocated to accommodate the proposed station expansion as shown on the map in the newspaper advertisement. The relocation of the access trail will occur prior to any station construction work to ensure continued access to Shack Lake. Hydro One has consulted with the Ministry of Natural Resources and Forestry, Town of Marathon and local groups to determine its new location off of Peninsula Road.

For more information, please visit the project website at:
https://www.hydroone.com/Projects/MarathonTS

If you have any questions or comments at this time, please don't hesitate to contact me.

Yours truly,

Stephanie Hodsoll

Community Relations Officer
Hydro One Networks Inc.
t: 416-345-6799
e: Community.Relations@HydroOne.com

NOTICE OF COMPLETION OF DRAFT ENVIRONMENTAL STUDY REPORT
Marathon Transformer Station Expansion

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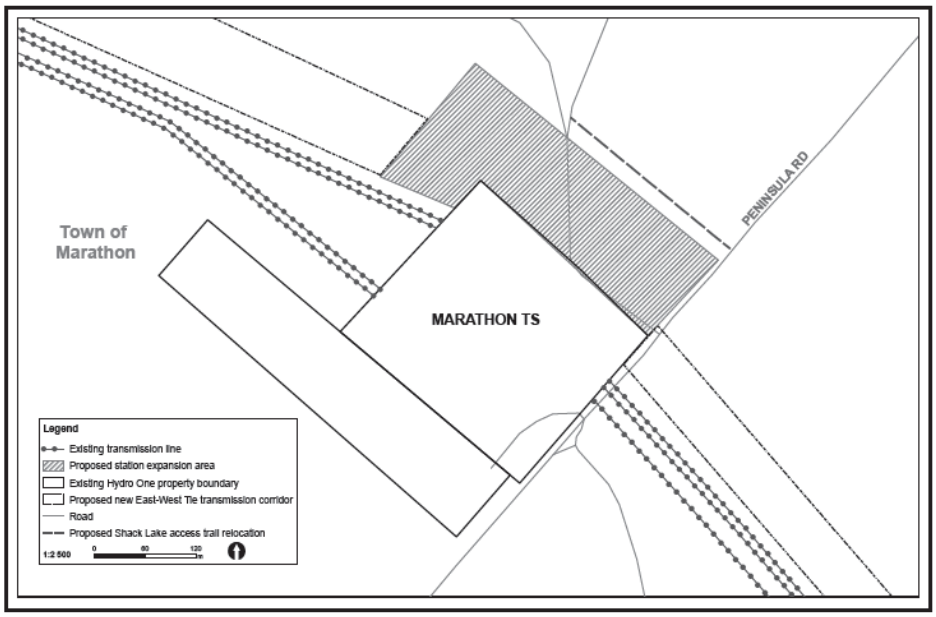

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HOW TO PROVIDE YOUR INPUT

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(807) 229-1340

Written comments or questions on the draft ESR must be received by Hydro One no later than 4:30 p.m. on April 9, 2018. Please address your correspondence to:

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Toronto ON, M5G 2P5
Email: Community.Relations@HydroOne.com

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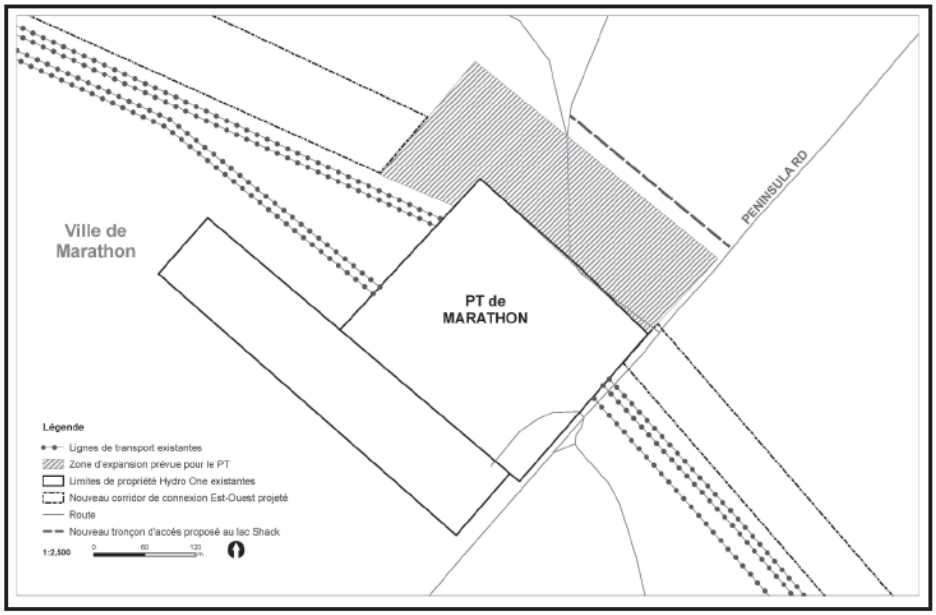

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De plus, le tronçon de départ de l'accès au lac Shack serait déplacé pour permettre l'expansion proposée. Hydro One a consulté le MRNF, la Ville de Marathon et des groupes locaux pour trouver un autre emplacement pour le tronçon de départ de l'accès, toujours à partir de Peninsula Road. Le nouveau tronçon serait construit avant le début des travaux d'agrandissement du poste afin d'assurer l'accès continu au lac Shack.

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COMMENT COMMUNIQUER VOS COMMENTAIRES

Conformément au processus d'EE de portée générale, Hydro One donne ici avis de son intention d'entreprendre le projet d'expansion. Le rapport d'EE provisoire sera mis à la disposition du public qui pourra l'examiner et fournir des commentaires écrits pendant une période de 30 jours, du 9 mars 2018 au 9 avril 2018. Le rapport peut être consulté à www.HydroOne.com/Projects/MarathonTS, et une copie papier est disponible à l'adresse suivante :

Bureau de la Ville de Marathon
4 Hemlo Drive, Marathon ON P0T 2E0
807 229-1340

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Yu San Ong, Planificatrice environnementale
483, rue Bay, Tour Nord, 12e étage
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Courriel : Community.Relations@HydroOne.com

Hydro One répondra aux préoccupations soulevées pendant la période d'examen et fera tout son possible pour les résoudre.

Si aucune préoccupation n'est présentée, Hydro One finalisera le rapport d'EE et le déposera auprès du ministère de l'Environnement et de l'Action en matière de changement climatique (MEACC). Le projet sera jugé acceptable et sera prêt à être réalisé conformément au rapport d'EE.

La *Loi sur les évaluations environnementales* prévoit des dispositions selon lesquelles des parties intéressées peuvent demander un renvoi du projet à un niveau supérieur d'évaluation si elles jugent que des préoccupations soulevées n'ont pas été résolues de manière satisfaisante par Hydro One.

Pour cela, la partie présente par écrit une demande d'arrêté au titre de la Partie II de la Loi au ministre de l'Environnement et au directeur des évaluations et des permissions environnementales. Toute demande d'arrêté devra parvenir au plus tard le 9 avril 2018, à 16 h 30, aux adresses suivantes :

Ministre de l'Environnement et de
l'Action en matière de changement climatique
77, rue Wellesley Ouest, 11e étage, Édifice Ferguson
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Courriel : Minister.MOECC@ontario.ca

Directeur, Direction des évaluations et
des permissions environnementales (MEACC)
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À NOTER : une copie de la demande d'arrêté au titre de la Partie II doit aussi être envoyée à Hydro One à l'adresse de Toronto indiquée plus haut.

Pour d'autres renseignements, appelez-nous au 1 877 345-6799, ou visitez www.HydroOne.com/Projects/MarathonTS.

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APPENDIX A-3:

CORRESPONDENCE LOG

CORRESPONDENCE WITH FIRST NATIONS AND MÉTIS COMMUNITIES

First Nations and Métis Communities – Rights Based

Date	Method	Stakeholder Contact(s)	Project Team Member(s)	Communication Summary
Ojibways of Pic River First Nation				
03/15/2017 – E-mail 03/16/2017 – Registered Mail	E-mail & Registered Mail	Chief Duncan Michano	April Fang (Hydro One)	HONI issued a Class EA Notice of Commencement to notify Ojibways of Pic River First Nation (OPRFN) of a Class EA for the proposed Marathon TS Expansion Project on March 15 and 16, via e-mail and registered mail, respectively.
03/23/2017	Phone call	Chief Duncan Michano	April Fang (Hydro One)	HONI called Chief Michano to ensure that the notification letter had been received.
07/11/2017 – Email 07/12/2017 – Registered Mail	E-mail & Registered Mail	Chief Duncan Michano	April Fang , Yu San Ong (Hydro One)	HONI sent the PIC invitation via e-mail and registered mail on July 11 and 12, respectively.
03/05/2018	E-mail & Registered Mail	Chief Duncan Michano	Yu San Ong (Hydro One)	HONI sent the Final Notification letter via e-mail and registered mail.
Pays Plat First Nation				
03/15/2017 – E-mail 03/16/2017 – Registered Mail	E-mail & Registered Mail	Chief Xavier Thompson	April Fang (Hydro One)	HONI issued Class EA Notice of Commencement to notify Pays Plat First Nation (PPFN) of a Class EA for the proposed Marathon TS Expansion Project on March 15 and 16, via e-mail and registered mail, respectively.
03/23/2017	Phone call	Chief Xavier Thompson	April Fang (Hydro One)	HONI called Chief Thompson to ensure that the notification letter had been received; there was no response, so a voicemail was left.
07/11/2017 – Email 07/12/2017 – Registered Mail	E-mail & Registered Mail	Chief Xavier Thompson	April Fang, Yu San Ong (Hydro One)	HONI sent the PIC invitation via e-mail and registered mail on July 11 and 12, respectively.
03/05/2018	E-mail & Registered Mail	Chief Xavier Thompson	Yu San Ong (Hydro One)	HONI sent the Final Notification letter via e-mail and registered mail.
03/05/2018	E-mail & Registered Mail	Chief David P. Mushquash	Yu San Ong (Hydro One)	HONI re-sent the Final Notification letter to the new Chief (Chief David P. Mushquash).
03/13/2018	E-mail	Chief David P. Mushquash	Rachel Afonso(Hydro One)	HONI sent a follow-up e-mail to ensure that the previous e-mail with the Notice of Completion was received, as the letter sent through registered mail was still in delivery.
Pic Mobert First Nation				

Date	Method	Stakeholder Contact(s)	Project Team Member(s)	Communication Summary
03/15/2017 – E-mail 03/16/2017 – Registered Mail	E-mail & Registered Mail	Chief Wayne Sabourin	April Fang (Hydro One)	HONI issued a Class EA Notice of Commencement to notify Pic Mobert First Nation (PMFN) of a Class EA for the proposed Marathon TS Expansion Project on March 15 and 16, via e-mail and registered mail, respectively.
03/23/2017	Phone call	Chief Wayne Sabourin	April Fang (Hydro One)	HONI called Chief Sabourin to ensure that the notification letter had been received; there was no response, so a voicemail was left.
07/11/2017 – Email 07/12/2017 – Registered Mail	E-mail & Registered Mail	Chief Wayne Sabourin	April Fang, Yu San Ong (Hydro One)	HONI sent the PIC invitation via e-mail and registered mail on July 11 and 12, respectively.
03/05/2018	E-mail & Registered Mail	Chief Wayne Sabourin	Yu San Ong (Hydro One)	HONI sent the Final Notification letter via e-mail and registered mail.
03/05/2018	E-mail & Registered Mail	Chief Johanna Desmoulin	Yu San Ong (Hydro One)	HONI re-sent the Final Notification letter to the new Chief (Chief Johanna Desmoulin).
Métis Nation of Ontario (MNO)				
03/15/2017 – E-mail 03/16/2017 – Registered Mail	E-mail & Registered Mail	Manager James Wagar	April Fang, Tausha Esquega (Hydro One)	HONI issued a Class EA Notice of Commencement to notify the Métis Nation of Ontario (MNO) of a Class EA for the proposed Marathon TS Expansion Project on March 15 and 16, via e-mail and registered mail, respectively.
03/23/2017	Phone call	Manager James Wagar	April Fang (Hydro One)	HONI called James Wagar to ensure that the notification letter had been received; there was no response so a voicemail was left.
04/13/2017	E-mail	Bonnie Bartlett	Tausha Esquega (Hydro One)	Bonnie Bartlett asked to add her to the MNO contact list. Hydro One also sent her the initial notification letter that Mr. Wagar had received.
07/11/2017 – Email 07/12/2017 – Registered Mail	E-mail & Registered Mail	Manager James Wagar, Bonnie Bartlett	April Fang, Yu San Ong (Hydro One)	HONI sent the PIC invitation via e-mail and registered mail on July 11 and 12, respectively.
03/05/2018	E-mail & Registered Mail	Manager James Wagar , Bonnie Bartlett	Yu San Ong (Hydro One)	HONI sent the Final Notification letter via e-mail and registered mail.
MNO Greenstone Métis Council				
03/15/2017 – E-mail 03/16/2017 – Registered Mail	E-mail & Registered Mail	William Gordon	April Fang (Hydro One)	HONI issued a Class EA Notice of Commencement to notify Métis Nation of Ontario (MNO), Greenstone Métis Council of a Class EA for the proposed Marathon TS Expansion Project on March 15 and 16, via e-mail and registered mail, respectively.

Date	Method	Stakeholder Contact(s)	Project Team Member(s)	Communication Summary
03/23/2017	Phone call	William Gordon	April Fang (Hydro One)	HONI called William Gordon to ensure that the notification letter had been received; there was no option for voicemail. HONI made a follow up call the week of March 27, and e-mailed March 30. No response was received.
07/11/2017 – Email 07/12/2017 – Registered Mail	E-mail & Registered Mail	William Gordon	April Fang, Yu San Ong (Hydro One)	HONI sent the PIC invitation via e-mail and registered mail on July 11 and 12, respectively.
03/05/2018	E-mail & Registered Mail	William Gordon	Yu San Ong (Hydro One)	HONI sent the Final Notification letter via e-mail and registered mail.
MNO Superior North Shore Métis Council				
03/15/2017 – E-mail 03/16/2017 – Registered Mail	E-mail & Registered Mail	Trent Desaulniers	April Fang (Hydro One)	HONI issued a Class EA Notice of Commencement to notify Métis Nation of Ontario (MNO), Superior North Shore Métis Council of a Class EA for the proposed Marathon TS Expansion Project on March 15 and 16, via e-mail and registered mail, respectively.
03/23/2017	Phone call/ E-mail	Trent Desaulniers	April Fang (Hydro One)	HONI called Trent Desaulniers to ensure that the notification letter had been received, April spoke with an assistant. HONI made a follow-up call and e-mail the week of March 27. No response was received.
07/11/2017 – Email 07/12/2017 – Registered Mail	E-mail & Registered Mail	Trent Desaulniers	April Fang, Yu San Ong (Hydro One)	HONI sent the PIC invitation via e-mail and registered mail on July 11 and 12, respectively.
03/05/2018	E-mail & Registered Mail	Trent Desaulniers	Yu San Ong (Hydro One)	HONI sent the Final Notification letter via e-mail and registered mail.
MNO Superior North Shore Métis Council				
03/15/2017 – E-mail 03/16/2017 – Registered Mail	E-mail & Registered Mail	Jean Camirand	April Fang (Hydro One)	HONI issued a Class EA Notice of Commencement to notify Métis Nation of Ontario (MNO), Thunder Bay Métis Council of a Class EA for the proposed Marathon TS Expansion Project on March 15 and 16, via e-mail and registered mail, respectively.
03/23/2017	Phone call	Jean Camirand	April Fang (Hydro One)	HONI called Jean Camirand to ensure that the notification letter had been received; there was no response so a voicemail was left.
07/11/2017 – Email 07/12/2017 – Registered Mail	E-mail & Registered Mail	Jean Camirand	April Fang , Yu San Ong (Hydro One)	HONI sent the PIC invitation via e-mail and registered mail on July 11 and 12, respectively.
03/05/2018	E-mail & Registered Mail	Jean Camirand	Yu San Ong (Hydro One)	HONI sent the Final Notification letter via e-mail and registered mail.

First Nations and Métis Communities – Interest Based

Date	Method	Stakeholder Contact(s)	Project Team Member(s)	Communication Summary
Animbiigoo Zaagi'igan Anishinaabek				
03/15/2017 – E-mail 03/16/2017 – Registered Mail	E-mail & Registered Mail	Chief Theresa Nelson	April Fang (Hydro One)	HONI issued a Class EA Notice of Commencement to notify Animbiigoo Zaagi'igan Anishinaabek (AZA) of a Class EA for the proposed Marathon TS Expansion Project on March 15 and 16, via e-mail and registered mail, respectively.
03/23/2017	Phone call/E-mail	Chief Theresa Nelson	April Fang (Hydro One)	HONI called Chief Theresa Nelson to ensure that the notification letter had been received. Chief Theresa Nelson stated that the team was reviewing the letter. HONI followed up the week of March 27 as a reminder.
03/31/2017	E-mail	Chief Theresa Nelson	April Fang (Hydro One)	Chief Theresa Nelson e-mailed HONI, and no issues or comments were expressed.
07/11/2017 – Email 07/12/2017 – Registered Mail	E-mail & Registered Mail	Chief Theresa Nelson	April Fang, Yu San Ong (Hydro One)	HONI sent the PIC invitation via e-mail and registered mail on July 11 and 12, respectively.
03/05/2018	E-mail & Registered Mail	Chief Theresa Nelson	Yu San Ong (Hydro One)	HONI sent the Final Notification letter via e-mail and registered mail.
Bingwi Neyaashi Anishinaabek				
03/15/2017 – E-mail 03/16/2017 – Registered Mail	E-mail & Registered Mail	Chief Joseph Ladouceur	April Fang (Hydro One)	HONI issued a Class EA Notice of Commencement to notify Bingwi Neyaashi Anishinaabek (BNA) of a Class EA for the proposed Marathon TS Expansion Project on March 15 and 16, via e-mail and registered mail, respectively.
03/23/2017	Phone call	Chief Joseph Ladouceur	April Fang (Hydro One)	HONI called Chief Joseph Ladouceur to ensure that the notification letter had been received; there was no response so a voicemail was left.
07/11/2017 – Email 07/12/2017 – Registered Mail	E-mail & Registered Mail	Chief Joseph Ladouceur	April Fang , Yu San Ong (Hydro One)	HONI sent the PIC invitation via e-mail and registered mail on July 11 and 12, respectively.
03/05/2018	E-mail & Registered Mail	Chief Joseph Ladouceur	Yu San Ong (Hydro One)	HONI sent the Final Notification letter via e-mail and registered mail.
Biinjitiwaabik Zaaging Anishinaabek				
03/15/2017 – E-mail 03/16/2017 – Registered Mail	E-mail & Registered Mail	Chief Melvin Hardy	April Fang (Hydro One)	HONI issued a Class EA Notice of Commencement to notify Biinjitiwaabik Zaaging Anishinaabek (BZA) of a Class EA for the proposed Marathon TS Expansion Project on March 15 and 16, via e-mail and registered mail, respectively.

Date	Method	Stakeholder Contact(s)	Project Team Member(s)	Communication Summary
03/23/2017	Phone call	Chief Melvin Hardy	April Fang (Hydro One)	HONI called Chief Melvin Hardy to ensure that the notification letter had been received; there were no questions or concerns.
07/11/2017 – Email 07/12/2017 – Registered Mail	E-mail & Registered Mail	Chief Melvin Hardy	April Fang, Yu San Ong (Hydro One)	HONI sent the PIC invitation via e-mail and registered mail on July 11 and 12, respectively.
03/05/2018	E-mail & Registered Mail	Chief Melvin Hardy	Yu San Ong (Hydro One)	HONI sent the Final Notification letter via e-mail and registered mail.
03/13/2018	E-mail	Chief Melvin Hardy	Rachel Afonso , Yu San Ong (Hydro One)	HONI sent a follow-up e-mail to ensure that the previous e-mail with the Notice of Completion was received, as the letter sent through registered mail was ready to be picked up and in the Final Notification stage.
Fort William First Nation				
03/15/2017 – E-mail 03/16/2017 Registered Mail	E-mail & Registered Mail	Chief Peter Collins	April Fang (Hydro One)	HONI issued a Class EA Notice of Commencement to notify to Fort William First Nation (FWFN) of a Class EA for the proposed Marathon TS Expansion Project on March 15 and 16, via e-mail and registered mail, respectively.
03/23/2017	Phone call	Chief Peter Collins	April Fang (Hydro One)	HONI called Chief Peter Collins to ensure that the notification letter had been received; there was no response so a voicemail was left.
07/11/2017 – Email 07/12/2017 – Registered Mail	E-mail & Registered Mail	Chief Peter Collins	April Fang, Yu San Ong (Hydro One)	HONI sent the PIC invitation via e-mail and registered mail on July 11 and 12, respectively.
03/05/2018	E-mail & Registered Mail	Chief Peter Collins	Yu San Ong (Hydro One)	HONI sent the Final Notification letter via e-mail and registered mail.
04/13/2018	E-mail	Chief Peter Collins	Rachel Afonso, Yu San Ong (Hydro One)	HONI sent a follow-up e-mail to ensure the community had received the previous e-mail, as the hardcopy letter sent through registered mail had been sent back to HONI.
Ginoogaming First Nation				
03/15/2017 – E-mail 03/16/2017 – Registered Mail	E-mail & Registered Mail	Chief Celia Echum	April Fang (Hydro One)	HONI issued a Class EA Notice of Commencement to notify Ginoogaming First Nation (GFN) of a Class EA for the proposed Marathon TS Expansion Project on March 15 and 16, via e-mail and registered mail, respectively.
03/23/2017	Phone call/E-mail	Chief Celia Echum	April Fang (Hydro One)	HONI called Chief Celia Echum to ensure that the notification letter had been received. HONI left a follow up call the week of March 27, and e-mailed March 30. No response was received.
07/11/2017 – Email 07/12/2017 – Registered	E-mail & Registered Mail	Chief Celia Echum	April Fang, Yu San Ong (Hydro One)	HONI sent the PIC invitation via e-mail and registered mail on July 11 and 12, respectively.

Date	Method	Stakeholder Contact(s)	Project Team Member(s)	Communication Summary
Mail				
03/05/2018	E-mail & Registered Mail	Chief Celia Echum	Yu San Ong (Hydro One)	HONI sent the Final Notification letter via e-mail and registered mail.
Long Lake No. 58 First Nation				
03/15/2017 – E-mail 03/16/2017 – Registered Mail	E-mail & Registered Mail	Chief Veronica Waboose	April Fang (Hydro One)	HONI issued a Class EA Notice of Commencement to notify Long Lake No. 58 First Nation (LLFN) of a Class EA for the proposed Marathon TS Expansion Project on March 15 and 16, via e-mail and registered mail, respectively.
03/23/2017	Phone call/E-mail	Chief Veronica Waboose	April Fang (Hydro One)	HONI called Chief Veronica Waboose to ensure that the notification letter had been received. HONI left a follow up call the week of March 27, and e-mailed March 30. No response was received.
07/11/2017 – Email 07/12/2017 – Registered Mail	E-mail & Registered Mail	Chief Veronica Waboose	April Fang , Yu San Ong (Hydro One)	HONI sent the PIC invitation via e-mail and registered mail on July 11 and 12, respectively.
03/05/2018	E-mail & Registered Mail	Chief Veronica Waboose	Yu San Ong (Hydro One)	HONI sent the Final Notification letter via e-mail and registered mail.
Michipicoten First Nation				
03/15/2017 – E-mail 03/16/2017 – Registered Mail	E-mail & Registered Mail	Chief Joe Buckell	April Fang (Hydro One)	HONI issued a Class EA Notice of Commencement to notify Michipicoten First Nation (MFN) of a Class EA for the proposed Marathon TS Expansion Project on March 15 and 16, via e-mail and registered mail, respectively.
03/23/2017	Phone call	Chief Joe Buckell	April Fang (Hydro One)	HONI called Chief Buckell to ensure that the notification letter had been received; there was no response so a voicemail was left.
05/31/2017	E-mail	Chief Patricia Tangie, Irene Armstrong	April Fang (Hydro One)	HONI re-sent a Notice of Commencement to notify MFN of a Class EA for the proposed Marathon TS Expansion Project to the new Chief (Chief Patricia Tangie).
06/01/2017	E-mail	Chief Patricia Tangie	April Fang (Hydro One)	Chief Tangie sent a response e-mail and asked that Hydro One present the project to her community.
06/13/2017	In-person meeting and presentation	Michipicoten First Nation	April Fang, Yu San Ong, Tausha Esquega (via call-in) (Hydro One)	Yu San and April (HONI Environmental Planners) presented the project in the conference room at the Water Tower Inn, Sault Ste. Marie, to the community. Tausha Esquega (HONI Indigenous Relations) joined on the phone.
06/14/2017	E-mail	Chief Patricia Tangie	April Fang (Hydro One)	HONI sent a follow-up e-mail to thank Chief Tangie for the opportunity, and to provide the list of action items from the meeting.
07/11/2017 – Email 07/12/2017 –	E-mail & Registered Mail	Chief Patricia Tangie	April Fang , Yu San Ong (Hydro One)	HONI sent the PIC invitation via e-mail and registered mail on July 11 and 12, respectively.

Date	Method	Stakeholder Contact(s)	Project Team Member(s)	Communication Summary
Registered Mail				
03/05/2018	E-mail & Registered Mail	Chief Patricia Tangie	Yu San Ong (Hydro One)	HONI sent the Final Notification letter via e-mail and registered mail.
Missanabie Cree First Nation				
03/15/2017 – E-mail 03/16/2017 – Registered Mail	E-mail & Registered Mail	Chief Jason Gauthier	April Fang (Hydro One)	HONI issued a Class EA Notice of Commencement to notify Missanabie Cree First Nation (MCFN) of a Class EA for the proposed Marathon TS Expansion Project on March 15 and 16, via e-mail and registered mail, respectively.
03/23/2017	Phone call	Chief Jason Gauthier (Missanabie Cree First Nation)	April Fang (Hydro One)	HONI called Chief Gauthier to ensure that the notification letter had been received; there was no option for voicemail. HONI left a follow up call the week of March 27, and e-mailed March 30. No response was received.
07/11/2017 – Email 07/12/2017 – Registered Mail	E-mail & Registered Mail	Chief Jason Gauthier	April Fang, Yu San Ong (Hydro One)	HONI sent the PIC invitation via e-mail and registered mail on July 11 and 12, respectively.
03/05/2018	E-mail & Registered Mail	Chief Jason Gauthier	Yu San Ong (Hydro One)	HONI sent the Final Notification letter via e-mail and registered mail.
Ojibways of Batchewana				
03/15/2017 – E-mail 03/16/2017 – Registered Mail	E-mail & Registered Mail	Chief Dean Sayers	April Fang (Hydro One)	HONI issued a Class EA Notice of Commencement to notify Ojibways of Batchewana (OB) of a Class EA for the Marathon TS Expansion Project on March 15 and 16, via e-mail and registered mail, respectively.
03/23/2017	Phone call	Chief Dean Sayers	April Fang (Hydro One)	HONI called Chief Sayers to ensure that the notification letter had been received; there was no response so a voicemail was left. On the same day, March 23, Chief Sayers called back and left a voicemail, providing his cell-phone number. HONI followed up and left another voicemail on this number.
07/11/2017 – Email 07/12/2017 – Registered Mail	E-mail & Registered Mail	Chief Dean Sayers	April Fang, Yu San Ong (Hydro One)	HONI sent the PIC invitation via e-mail and registered mail on July 11 and 12, respectively.
03/05/2018	E-mail & Registered Mail	Chief Dean Sayers	Yu San Ong (Hydro One)	HONI sent the Final Notification letter via e-mail and registered mail.
Ojibways of Garden River				

Date	Method	Stakeholder Contact(s)	Project Team Member(s)	Communication Summary
03/15/2017 – E-mail 03/16/2017 – Registered Mail	E-mail & Registered Mail	Chief Paul Syrette, Cheyenne Nolan, Darlene Solomon	April Fang (Hydro One)	HONI issued a Class EA Notice of Commencement to notify Ojibways of Garden River (OGR) of a Class EA for the proposed Marathon TS Expansion Project on March 15 and 16, via e-mail and registered mail, respectively.
03/23/2017	Phone call	Chief Paul Syrette	April Fang (Hydro One)	HONI called Chief Syrette to ensure that the notification letter had been received; there was no response so a voicemail was left.
04/04/2017	E-mail	Chief Paul Syrette	April Fang (Hydro One)	Chief Syrette issued a formal response letter to HONI, inquiring about capacity funding to review the ESR when it becomes available.
04/12/2017	E-mail	Chief Paul Syrette	April Fang (Hydro One)	HONI responded, stating that they would consider capacity funding and would offer a discussion.
04/13/2017	E-mail	Chief Paul Syrette	April Fang(Hydro One)	Chief Syrette sent a Proposed Capacity Funding proposal to HONI.
05/03/2017	E-mail	Chief Paul Syrette	April Fang (Hydro One)	HONI sent a letter in response to the capacity funding.
05/30/2017	Conference call	Cheyenne Nolan, Richard Perrault	Yu San Ong, Daniel Charbonneau (Hydro One)	HONI held a conference call with the Environmental Planner and Manager of Indigenous Relations at Hydro One and Cheyenne Nolan and Richard Perrault, from Economic Resource and Community Development at the Ojibways of Garden River to discuss the proposed capacity funding.
06/01/2017	E-mail	Cheyenne Nolan, Richard Perrault	April Fang (Hydro One)	HONI sent the action items from the conference call to Chief Syrette.
07/11/2017 – Email 07/12/2017 – Registered Mail	E-mail & Registered Mail	Chief Paul Syrette	April Fang, Yu San Ong (Hydro One)	HONI sent the PIC invitation via e-mail and registered mail on July 11 and 12, respectively. On August 4th, the letter was returned as unclaimed.
09/09/2017	E-mail	Darlene Solomon	April Fang (Hydro One)	HONI sent a follow-up e-mail to inform the Ojibways of Garden River on the draft ESR submission date, provided PIC panels, project website details, and offered to meet with the community.
02/27/2018	E-mail	Darlene Solomon	Yu San Ong (Hydro One)	HONI sent a follow up e-mail to inform the community of the submission of the draft ESR and offered to arrange a meeting/conference call to discuss the proposed Project.
03/05/2018	E-mail & Registered Mail	Chief Paul Syrette	Yu San Ong (Hydro One)	HONI sent the Final Notification letter via e-mail and registered mail.
03/09/2018	E-mail	Darlene Solomon, Cheyenne Nolan, Richard Perrault	Yu San Ong (Hydro One)	HONI sent a follow-up e-mail, ensuring that the community was aware of the 30-day Public Review Period, and forwarded the Final Notification letter that had been sent to Chief Syrette. HONI also offered to send a hardcopy version of the draft ESR and offered to discuss the project and/or draft ESR with the community.
03/19/2018	Conference Call	Darlene Solomon, Cheyenne Nolan, Richard Perrault, Alexis Vanderheyden Perrault	Yu San Ong, Rachel Afonso, Emily Spitzer, Devi Shantilal (Hydro One)	HONI held a conference call with the community to discuss the proposed Project and receive feedback on the draft ESR. Topics included: preliminary plans for the HONI project team to visit the monthly community engagement meeting to present the proposed Project and receive feedback, and next steps for the community's review process of the draft ESR.

Date	Method	Stakeholder Contact(s)	Project Team Member(s)	Communication Summary
03/20/2018	Mail/E-mail	Darlene Solomon, Cheyenne Nolan, Richard Perrault, Alexis Vanderheyden Perrault	Yu San Ong, Rachel Afonso, Emily Spitzer, Devi Shantilal (Hydro One)	HONI sent a hardcopy of the draft ESR to the attention of Darlene Solomon. HONI provided the PIC panels via e-mail to inquire on the level of detail for the handouts of the community meeting.
04/03/2018	In-person Presentation	Garden River First Nation community meeting	Yu San Ong, Arnold Brakel, Devi Shantilal (Hydro One)	HONI project team members attended the GRFN community meeting at the Garden River First Nation Community Centre to present the proposed project and welcome any questions and/or concerns. At the meeting, GRFN requested a 30-day extension to review the draft ESR.
04/05/2018	E-mail	Darlene Solomon, Cheyenne Nolan	Yu San Ong (Hydro One)	GRFN e-mailed HONI, stating that they had hired a consultant to review the draft ESR on behalf of the community.
04/05/2018	E-mail	Darlene Solomon, Cheyenne Nolan, Richard Perrault , Chief Syrette	Yu San Ong, Arnold Brakel, Devi Shantilal, Rachel Afonso (Hydro One)	HONI responded, stating that they would provide a 30-day extension to the community to review and provide comments on the draft ESR. HONI additionally offered to work with GRFN and their consultant on the review of the report by either hosting a conference call, or could arrange an in-person meeting at the community's office.
04/19/2018	E-mail	Darlene Solomon, Cheyenne Nolan, Richard Perrault , Chief Syrette	Yu San Ong, Arnold Brakel, Devi Shantilal, Rachel Afonso (Hydro One)	HONI sent GRFN a draft of the questions and answer notes from the April 3 community meeting. HONI additionally requested that GRFN provide any comments.
04/30/2018	E-mail	Darlene Solomon	Yu San Ong (Hydro One)	GRFN sent Hydro One their formal comments to the draft ESR.
07/17/2018	E-mail	Darlene Solomon	Yu San Ong (Hydro One)	Hydro One sent GRFN their responses to the comments provided from GRFN on the draft ESR.
Red Rock Indian Band				
03/15/2017 – E-mail 03/16/2017 – Registered Mail	E-mail & Registered Mail	Chief Edward Wawia	April Fang (Hydro One)	HONI issued a Class EA Notice of Commencement to notify Red Rock Indian Band (RRIB) of a Class EA for the proposed Marathon TS Expansion Project on March 15 and 16, via e-mail and registered mail, respectively.
03/23/2017	Phone call	Chief Edward Wawia	April Fang (Hydro One)	HONI called Chief Wawia to ensure that the notification letter had been received; there was no response, so a voicemail was left.
07/11/2017 – Email 07/12/2017 – Registered Mail	E-mail & Registered Mail	Chief Edward Wawia	April Fang, Yu San Ong (Hydro One)	HONI sent the PIC invitation via e-mail and registered mail on July 11 and 12, respectively.
03/05/2018	E-mail & Registered Mail	Chief Edward Wawia	Yu San Ong (Hydro One)	HONI sent the Final Notification letter via e-mail and registered mail.
Red Sky Métis Independent Nation				
03/15/2017 – E-mail 03/16/2017 –	E-mail & Registered Mail	Dean Whellan	April Fang (Hydro One)	HONI issued a Class EA Notice of Commencement to the Red Sky Métis Independent Nation (RSMIN) of a Class EA for the proposed Marathon TS Expansion Project on March 15 and 16, via e-mail and registered mail, respectively.

Date	Method	Stakeholder Contact(s)	Project Team Member(s)	Communication Summary
Registered Mail				
03/23/2017	Phone call/E-mail	Dean Whellan	April Fang (Hydro One)	HONI called the community to ensure that the notification letter had been received; they had not yet had the chance to review the letter. A follow-up e-mail was sent the week of March 27.
04/03/2017	Email	Dean Whellan	April Fang (Hydro One)	Mr. Whellan, Community Consultant with RSMIN, e-mailed HONI stating that no concerns were identified with the proposed Project, and that the community would like to be notified should any artifacts or culturally significant items be recovered.
07/11/2017 – Email 07/12/2017 – Registered Mail	E-mail & Registered Mail	Dean Whellan	April Fang, Yu San Ong (Hydro One)	HONI sent the PIC invitation via e-mail and registered mail on July 11 and 12, respectively.
03/05/2018	E-mail & Registered Mail	Dean Whellan	Yu San Ong (Hydro One)	HONI sent the Final Notification letter via e-mail and registered mail.
06/13/2018	E-mail	Donelda DeLaRonde	Rachel Afonso (Hydro One)	Hydro One received an email from Dondela DeLaRonde in response to the Final Notification letter. The email contained an attached word document and requested that Hydro One confirm the order was received.
06/14/2018	E-mail /Phone call	Donelda DeLaRonde	Rachel Afonso Cc: Yu San Ong, Tausha Esquega (Hydro One)	Hydro One responded, stating that they could not open the attachment and requested a different version. The email bounced back. Hydro One then phoned Donelda to inquire about the email, and the phone number listed was for a construction company.

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September 28th, 2016

Amy Gibson
Manager, First Nations and Métis Policy and Partnerships Office
Ministry of Energy
6th floor
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Toronto ON M7A1B3

RE: East-West Tie Marathon TS Class EA Project – First Nations and Métis Inquiry

Dear Ms. Gibson:

This letter is to inform you that Hydro One Networks Inc. (Hydro One) is planning to initiate a Class Environmental Assessment (EA) for proposed work at the Marathon Transformer Station (TS). This work is required to support the proposed East-West Tie project which consists of double-circuit 230kV lines between Wawa TS and Marathon TS and between Marathon TS and Lakehead TS. NextBridge is developing the lines and Hydro One, as the Connection/Neighbouring Transmitter, will connect these lines to Wawa TS, Marathon TS and Lakehead TS. The planned project area is shown on the attached map.

In order to accommodate NextBridge's East-West-Tie double circuit 230kV transmission lines project that is currently in the development stage, Hydro One will need to expand the existing Marathon TS by 5.14 hectares on the north side of the existing Marathon TS property on Peninsula Road and the Wawa TS on the north side by 0.39 hectare.

Hydro One is planning to initiate a Class Environmental Assessment (EA) to expand the Marathon TS. Hydro One will seek an additional 5.14 hectares of patented land from the Ministry of Natural Resources and Forestry for the proposed expansion area, shown on the attached maps. The required work at the Wawa TS will be carried out as per the Class EA Screening Process as described under the *Class Environmental Assessment for Minor Transmission Facilities* (Ontario Hydro, 1992), and the additional land is to be acquired from the adjacent private landowner. The work at Lakehead TS will not require any property expansion and does not require an environmental assessment.

The current scope of work includes:

- Reconfiguration of 230 kV buses and diameters at Wawa TS, Marathon TS and Lakehead TS
- Installation of new 230 kV circuit breakers and disconnect switches and connection of the circuits in the above stations
- Installation of two 230 kV shunt reactors at Marathon TS
- Installation of a 230 kV shunt reactor at Lakehead TS
- Installation of a 230 kV shunt capacitor bank at Lakehead TS
- Re-termination of the existing 230kV circuits inside Wawa TS, Marathon TS and Lakehead TS
- Connection between the last structures of the NextBridge's 230 kV circuits outside the Wawa TS, Marathon TS and Lakehead TS and the structures inside the stations
- Upgrading sections of the 115 kV circuits between Marathon TS and Alexander SS

Hydro One's proposed work at the Marathon TS will be carried out as per the Ministry of Natural Resources and Forestry *Class EA for Resource Stewardship and Facility Development Projects* (2015). Hydro One does not expect any significant environmental impacts and any environmental effects are likely to be limited to the location of the station. The Class EA will include studies to identify any environmental effects and propose mitigation and as part of the Class EA process, natural heritage surveys and archaeological assessments will be undertaken.

Following approval of the Class EA, Hydro One will be filing an application for approval with the Ontario Energy Board under section 92 of the *Ontario Energy Board Act*. Any additional approvals will be identified through the EA process. Construction on this project is anticipated to begin in December 2020.

Hydro One has identified the following First Nation and Métis communities in proximity to the project area:

1. Michipicoten First Nation
2. Ojibways of Pic River
3. Pic Mobert First Nation
4. Pays Plat First Nation
5. Red Rock First Nation
6. Biinjitiwaabik Zaaging Anishinaabek
7. (Rocky Bay)
8. Bingwi Neyaashi Anishinaabek
9. (Sand Point)
10. MNO Superior North Shore Métis Council
11. Métis Nation of Ontario
12. Red Sky Métis Independent Nation

Please advise us whether you consider this a project that will require Aboriginal and treaty rights consultation and if so whether the Crown delegates its duty to consult to Hydro One. If affirmative, please indicate what depth of consultation is required? In addition, would you kindly confirm that this is an accurate and exhaustive list of First Nation and Métis communities to be included in the consultations for this project?

Hydro One recognizes that if, during public consultations, any First Nation or Métis community makes an assertion of a potential impact of the project on its Aboriginal or treaty rights, it must notify the Crown with respect to any potential duty to consult and accommodate. Hydro One is also aware of the need to be mindful of possible archaeological material in the area. For this reason, Hydro One would appreciate a map of the traditional territories and/or culturally sensitive areas in that locale if this is available.

If you have any questions regarding this matter, please feel free to contact me at (416) 345-4357. Should there be any updates to the project information provided above, I will ensure you are promptly informed.

Sincerely,

Daniel Charbonneau
A/Senior Manager, First Nations and Métis Relations

CC: Brian McCormick, Manager, Environmental Services and Approvals, Hydro One
Robyn Oldewening, MES, Environmental Planner, Environmental Engineering and Project Support, Hydro One
Sara Jane Souliere, Senior Advisor, First Nations and Métis Relations, Hydro One

Ministry of Energy

77 Grenville Street
6th Floor
Toronto ON M7A 2C1

Tel: (416) 314-2599

Ministère de l'Énergie

77 rue Grenville
6e étage
Toronto ON M7A 2C1

Tél: (416) 314-2599

Ontario

Indigenous Energy Policy

January 26, 2017

Daniel Charbonneau
Senior Manager, First Nation & Métis Relations
Hydro One Networks Inc.
483 Bay Street, TCT6, South Tower
Toronto, ON M5G 2P5

Re: East-West Tie Marathon TS Class EA Project – First Nation and Métis Inquiry

Dear Mr. Charbonneau:

Thank you for your letter of September 28, 2016 about the proposed work at the Marathon Transformer Station (TS).

I understand that the proposed work will require a *Class Environmental Assessment (EA) for Resource Stewardship and Facility Development Projects (2015).* You have advised the Ministry of Energy (the Ministry) that the work will consist of an expansion of the site by 5.14 hectares and will include:

- Reconfiguration of 230 kV buses and diameters;
- Installation of new 230 kV circuit breakers;
- Installation of two 230 kV shunt reactors;
- Re-termination of the existing 230kV circuits; and
- Connection between the last structures of NextBridge's 230 kV circuits and the structures inside the station.

Based on the information Hydro One has provided to date, and on currently available information, the following communities should be consulted on the basis that they have or may have constitutionally protected Aboriginal or treaty rights that may be adversely impacted by the project:

COMMUNITY	MAILING ADDRESS
Ojibways of Pic River First Nation	78 Pic River Rd., Box 193 Pic River First Nation, ON P0T 1R0
Pic Mobert First Nation	Pic Mobert First Nation P.O. Box 717, Mobert, ON P0M 2J0
Pays Plat First Nation	10 Central Place, Pays Plat First Nation, ON P0T 3C0
MNO Superior North Shore Métis Council	26 Princess Street Terrace Bay, ON P0T 2W0
MNO Thunder Bay Métis Council	226 May Street South Thunder Bay, ON, P7E 1B4
MNO Greenstone Métis Council	PO Box 825 211-401R 4th Ave Geraldton, ON P0T 1M0
Métis Nation of Ontario	500 Old St. Patrick St, Unit 3 Ottawa, ON, K1N 9G4

I recommend that Hydro One maintain a record of their interactions with First Nation and Métis communities about the project. In the event that a community provides Hydro One with information indicating a potential adverse impact of this project on its Aboriginal or treaty rights, I request that you notify the Ministry.

Please do not hesitate to contact Shannon McCabe, Senior Advisor at 416-212-6704 or shannon.mccabe@ontario.ca if you have any further questions or you wish to discuss this matter in more detail.

Sincerely,

Amy Gibson
Manager
Indigenous Energy Policy

c: Brian McCormick, Manager, Environmental Services and Approvals, Hydro One
Robyn Oldewening, MES, Environmental Planner, Environmental Engineering and Project Support, Hydro One
Sara Jane Souliere, Senior Advisor, First Nations and Métis Relations, Hydro One

/sm

From: McCabe, Shannon (ENERGY) [mailto:Shannon.McCabe@ontario.ca]
Sent: Thursday, January 26, 2017 12:08 PM
To: CHARBONNEAU Daniel
Cc: Gibson, Amy (ENERGY); OLDEWENING Robyn; SHANTILAL Devi; SOULIERE Sara Jane
Subject: Marathon TS

Good afternoon Daniel,

Attached you will find the Ministry of Energy's response to your letter regarding Hydro One's proposed work at the Marathon Transformer Station. Thank you for the opportunity to comment.

Based on currently available information and the information provided by Hydro One, the Ministry has identified the following communities that should be consulted on the basis that they have or may have constitutionally protected Aboriginal treaty rights that may be adversely impacted by the project:

- Ojibways of Pic River First Nation
- Pic Mobert First Nation
- Pays Plat First Nation
- MNO Superior North Shore Métis Council
- MNO Thunder Bay Métis Council
- MNO Greenstone Métis Council
- Métis Nation of Ontario

Please see the attached response for further details.

The Ministry is also aware of other communities, some of which were also listed in your September 28, 2016 letter, that may be interested in this project given its connection to the East West Tie transmission line project currently under development. Therefore, the Ministry encourages Hydro One to consider including the following communities in any interest-based engagement efforts:

- Animbiigoo Zaagi'igan Anishinaabek
- Biinjitiwaabik Zaaging Anishinaabek
- Bingwi Neyaashi Anishinaabek
- Fort William First Nation
- Ginoogaming First Nation
- Long Lake No. 58 First Nation
- Michipicoten First Nation
- Missanabie Cree First Nation
- Ojibways of Batchewana
- Ojibways of Garden River
- Red Rock First Nation
- Red Sky Métis Independent Nation

If you have any further questions or concerns, or you would like to discuss, please do not hesitate to contact me.

Best regards,

Shannon

Shannon McCabe
Senior Advisor
Indigenous Energy Policy
Ministry of Energy
(416) 212-6704

77 Grenville Street, 6th Floor, Toronto, ON M7A 2C1

CORRESPONDENCE WITH FEDERAL GOVERNMENT REPRESENTATIVES AND AGENCIES

Federal Government Representatives and Agencies

Date	Method	Stakeholder Contact(s)	Project Team Member(s)	Communication Summary
Aboriginal Affairs and Northern Development Canada				
05/12/2017	E-mail	EA Coordination (Aboriginal Affairs and Northern Development Canada)	April Fang (Hydro One Networks)	HONI issued a Notice of Commencement to notify Aboriginal Affairs and Northern Development Canada (AANDC) of the commencement of a Class EA for the proposed Marathon TS Expansion Project.
07/14/2017	E-mail	EA Coordination (Aboriginal Affairs and Northern Development Canada)	April Fang (Hydro One Networks)	HONI sent an invitation to the PIC.
03/05/2018	E-mail	EA Coordination (Aboriginal Affairs and Northern Development Canada)	Yu San Ong (Hydro One Networks)	HONI sent the Final Notification letter.
Canadian Environmental Assessment Agency				
05/12/2017	E-mail	Anjala Puvananathan (Canadian Environmental Assessment Agency)	April Fang (Hydro One Networks)	HONI issued a Notice of Commencement to notify Canadian Environmental Assessment Agency (CEAA) of the commencement of a Class EA for the Marathon TS Expansion Project.
07/14/2017	E-mail	Anjala Puvananathan (Canadian Environmental Assessment Agency)	April Fang (Hydro One Networks)	HONI sent an invitation to the PIC.
03/05/2018	E-mail	Anjala Puvananathan (Canadian Environmental Assessment Agency)	Yu San Ong (Hydro One Networks)	HONI sent the Final Notification letter.
Environment Canada				
05/12/2017	E-mail	Rob Dobos (Environment Canada)	April Fang (Hydro One Networks)	HONI issued a Notice of Commencement to notify Environmental Canada (EC) of the commencement of the Class EA for the proposed Marathon TS Expansion Project.
07/14/2017	E-mail	Rob Dobos (Environment Canada)	April Fang (Hydro One Networks)	HONI sent an invitation to the PIC.
03/05/2018	E-mail	Rob Dobos (Environment Canada)	Yu San Ong (Hydro One Networks)	HONI sent the Final Notification letter.
Health Canada				
05/12/2017	E-mail	Katherine Hess (Health Canada)	April Fang (Hydro One Networks)	HONI issued a Notice of Commencement to notify Health Canada (HC) of the commencement of a Class EA for the proposed Marathon TS Expansion Project.
07/14/2017	E-mail	Katherine Hess (Health Canada)	April Fang (Hydro One Networks)	HONI sent an invitation to the PIC.
03/05/2018	E-mail	Katherine Hess (Health Canada)	Yu San Ong (Hydro One Networks)	HONI sent the Final Notification letter.
Nav Canada				
05/12/2017	E-mail	Land Use Office (Nav Canada)	April Fang (Hydro One Networks)	HONI issued a Notice of Commencement to notify Nav Canada of the commencement of a Class EA for the proposed Marathon TS Expansion Project.
05/23/2017	E-mail	Diane Lévesque (Nav Canada)	April Fang (Hydro One Networks)	Nav Canada e-mailed HONI requesting that they complete a Land Use submission with the coordinates, elevation and height of the TS for their assessment. Land Use file number: 17-1894.
07/14/2017	E-mail	Land Use Office (Nav Canada)	April Fang (Hydro One Networks)	HONI sent an invitation to the PIC.
07/28/2017	E-mail	Aleksandar Trandafilovski (Nav	April Fang (Hydro One	Nav Canada e-mailed HONI with a letter stating that they have evaluated the proposal and have no objection. Nav Canada's land use evaluation is valid

Date	Method	Stakeholder Contact(s)	Project Team Member(s)	Communication Summary
		Canada)	Networks)	for a period of 12 months.
11/27/2017	E-mail	Aleksandar Trandafilovski (Nav Canada)	Rachel Afonso (Hydro One Networks)	HONI e-mailed Nav Canada, looking to confirm that they did not need to submit a Land Use Evaluation for the proposed Project.
11/28/2017	E-mail	Aleksandar Trandafilovski (Nav Canada)	Rachel Afonso (Hydro One Networks)	Nav Canada responded, stating that no further action is required on HONI's part.
03/05/2018	E-mail	Land Use Office (Nav Canada)	Yu San Ong (Hydro One Networks)	HONI sent the Final Notification letter.
Transport Canada				
05/12/2017	E-mail	David Zeit (Transport Canada - Ontario Region)	April Fang (Hydro One Networks)	HONI issued a Notice of Commencement to notify Transport Canada (TC) of the commencement of the Class EA for the proposed Marathon TS Expansion Project.
07/14/2017	E-mail	David Zeit (Transport Canada - Ontario Region)	April Fang (Hydro One Networks)	HONI sent an invitation to the PIC.
08/25/2017	E-mail	John Seto (Transport Canada)	April Fang (Hydro One Networks)	HONI sent TC the Aeronautical Assessment Form for the project. Reference number: ATS-17-18-00035709
09/06/2017	E-mail	John Seto (Transport Canada)	April Fang (Hydro One Networks)	TC requested that additional information be added into the application regarding coordinates and height information for towers.
09/07/2017	E-mail	John Seto (Transport Canada)	April Fang (Hydro One Networks)	HONI sent TC the revised Aeronautical Assessment Form for the project. Reference number: ATS-17-18-00035709.
11/24/2017	E-mail	Margaret Menczel (Transport Canada)	Yu San Ong (Hydro One Networks), Rachel Afonso (Hydro One Networks)	TC sent HONI the assessed Transport Canada Aeronautical Assessment Form for Obstruction Marking and Lighting ATS-17-18-00035709. The assessment expires 18 months from the date of the assessment unless extended, revised, or terminated by the issuing office.
03/05/2018	E-mail	David Zeit (Transport Canada - Ontario Region)	Yu San Ong (Hydro One Networks)	HONI sent the Final Notification letter.

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navcanada.ca

July 28, 2017

Your file
Marathon Transformer Station Expansion (217 Peninsula Road)
Our file
17-1894

Ms. April Fang
Hydro One Inc.
483 Bay Street, North Tower, 12th Floor
Toronto, ON
M5G 2P5

RE: Other Permanent Structure(s): Transformer Station - Marathon, ON
(N48° 44' 29.05" W86° 21' 14.65" / 0' AGL / 1018' AMSL)

Ms. Fang,

NAV CANADA has evaluated the captioned proposal and has no objection to the project as submitted.

NAV CANADA does not require notification of construction; however, if you should decide not to proceed with this project, please advise us accordingly so that we may formally close the file. If you have any questions, contact the Land Use Department by telephone at 1-866-577-0247 or e-mail at landuse@navcanada.ca.

NAV CANADA's land use evaluation is valid for a period of 12 months. Our assessment is limited to the impact of the proposed physical structure on the air navigation system and installations; it neither constitutes nor replaces any approvals or permits required by Transport Canada, Industry Canada, other Federal Government departments, Provincial or Municipal land use authorities or any other agency from which approval is required. Industry Canada addresses any spectrum management issues that may arise from your proposal and consults with NAV CANADA Engineering as deemed necessary.

Yours truly,

Gheorghe Adamache | NAV CANADA
Manager - AIM IFP Service Delivery

cc ONTR - Ontario Region, Transport Canada
CYSP - MARATHON
CPX2 - MARATHON (WILSON MEMORIAL HOSPITAL)(HELI)

Transport Canada / Transports Canada

AERONAUTICAL ASSESSMENT FORM FOR OBSTACLE EVALUATION

Transport Canada number: ATS-17-18-00035709

Applicant number:

SECTION 1

Owner's Name	Contact Person
Hydro One Networks Inc.	Yu-San Ong

Address: 483 Bay Street

City	Province	Postal Code
Toronto	Ontario	M5G 2P5

Telephone number (999-999-9999)	Fax number (999-999-9999)	Email Address
(416-345-5031)		YuSan.Ong@HydroOne.com

SECTION 2

Applicant's Name	Contact Person

Address:

City	Province	Postal Code

Telephone number (999-999-9999)	Fax number (999-999-9999)	Email Address

SECTION 3

Description of Proposal (or as attached)

Hydro One Networks Inc. has initiated a Class Environmental Assessment (EA) to expand the existing Marathon Transformer Station (TS) by approximately five hectares onto adjacent Crown land. The proposed Marathon TS is located at 217 Peninsula Road in the Town of Marathon, and is within 6km of the center of an aerodrome of Marathon Airport.

- Section 11: Please see attachment at the end of the document for coordinates of Marathon TS Expansion area.
- Section 13: There will no lighting or marking proposed, therefore, no monitoring would be required.
- Section 15: The tallest structure to be constructed within the station fence will be approximately 90 ft tall.
- Section 16: There is no Airport Zoning Regulations for the Marathon Airport.

Supporting documentation is attached at the end of the document, regarding a map showing the project study area.

SECTION 4

Nearest Community	Province
Town of Marathon	Ontario

SECTION 5	SECTION 6
Nearest Aerodrome: Marathon Airport	Have you contacted the aerodrome? (✓) Yes ( ) No
SECTION 7	**SECTION 8**
Notice of: (✓) New Construction ( ) Change to existing structure	Duration: (✓) Permanent ( ) Temporary

SECTION 9

Proposed Construction Date Beginning (yyyy-mm-dd): 2018-06-01

SECTION 10

Temporary Structure

From date (yyyy-mm-dd) _____ To date (yyyy-mm-dd) _____

Transport Canada number
ATS-17-18-00035709

SECTION 11

Geographic Coordinates ☑ NAD83 ☐ NAD27 ☐ WGS84

For multiple structures in a grouping, submit geographical coordinates on a seperate spreadsheet (e.g. windfarms, transmission lines)

N Latitude deg _____ min _____ sec _____

W Longitude deg _____ min _____ sec _____

SECTION 12

Marking and Lighting Proposed (refer to Standard 621)

- ☐ Red lights and paint
- ☐ Red and M.I. white lights
- ☐ White M.I. lights
- ☐ Red and H.I. white lights
- ☐ White H.I. lights
- ☑ No painting
- ☑ No lighting
- ☐ Paint marking only
- ☐ Other (provide description): _____

SECTION 13

Monitoring to Standard 621, article 4.7

- ☐ Visual inspection – 24 hrs
- ☐ [1] Remote indicator – failure alarm
- ☐ Remote indicator – with self-diagnostic
- ☑ [2] Other

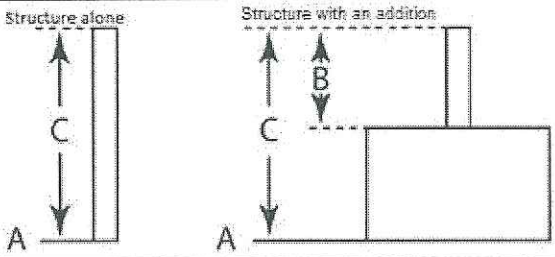
[1] Mitigation to be detailed in Section 3 [2] Justification to be given in Section 3

SECTION 14

Catenary/Cable Crossing

- ☐ Paint supporting structures
- ☐ Cable marker spheres
- ☐ Shore markers
- ☐ Support structure lighting
- ☐ Cable marker lights

SECTION 15	Feet	Metres
A Ground Elevation (AMSL)	998	304.190
B Height of an addition to a structure	0	0
C Total structure height including B (AGL)	90	27.432
Overall height (A plus C) (AMSL)	1088	331.662



SECTION 16

Does the proposal comply with ***Airport Zoning Regulations***?

◯ Yes ◯ No ◉ N/A

Where the location of the object is on lands affected by ***Airport Zoning Regulations***, a legal survey is required with the submital.

I hereby certify that all the above statements made by me are true, complete and correct to the best of my knowledge. Also, I agree to mark and/or light and maintain the structure with established marking and lighting standards as necessary.

Yu San Ong (Rev 1) original submitted Aug 25, 2017
Name of person filing notice

Signature

2017-09-07
Date (yyyy-mm-dd)

TRANSPORT CANADA ASSESSMENT (Transport Canada use only)

Marking and lighting required (as per Standard 621)

- ☐ Night protection required
- ☐ Day protection required
- ☐ Temporary lighting required
- ☑ No protection required

Completion of this form does not constitute authorization for construction nor replace other approvals or permits. See instruction E and F.

Civil Aviation Inspector	Signature	Date (yyyy-mm-dd
M. Menczel		2017-11-24

Note 1: This assessment expires 18 months from the date of assessment unless extended, revised, or terminated by the issuing office.
Note 2: If there is a change to the intended installation, a new submittal is required.

Canada

USE AND INSTRUCTIONS FOR COMPLETING FORM

A. Purpose of Form: The purpose of this form is to assess the need and application of marking and lighting for objects that may pose a hazard to aviation and to determine conformance to ***Airport Zoning Regulations***.

B. When to Complete the Form: Completed forms, electronic or paper, are submitted at least 90 days prior to all alterations which increase the structure's height; or for proposed new structures if:

(i) of such a height as to penetrate an airport obstacle limitation surface specified in the *Aerodrome Standards and Recommended Practices Manual* – TP312;

(ii) within 6 km of the centre of an aerodrome;

(iii) higher than 90 m AGL within 3.7 km of the centreline of a recognized VFR route such as, but not limited to, a valley, a railroad, a transmission line, a pipeline, a river or a highway;

(iv) higher than 150 m AGL at any other location; or

(v) a component of a catenary wire crossing where any portion of the wires or supporting structures exceed 90 m AGL;

C. Proponents are encouraged to make submittal for other objects such as skeletal and solid structures, MET (meteorological) towers, power lines and bridges, in order for the Minister to determine if they constitute a hazard to air navigation in accordance with CAR 601.25.

D. Supporting Data and Documents

(i) a 1:50,000 scale map, or the most detailed map available showing ground contour elevations to allow determination of the structure's latitude and longitude.

(ii) sketches, plans or blueprints for structures other than radio or TV antennae.

E. This form does not constitute authority for construction.

F. This form neither constitutes nor replaces any approvals, permits or assessments required by NAV CANADA, Industry Canada, other Federal Government departments, Provincial or Municipal land use authorities or any other agency from which approval/assessment is required.

G. Completed applications are to be forwarded to the applicable Transport Canada Regional office listed in Standard 621, Appendix A.

H. A separate application is to be submitted to NAV CANADA. For a detailed description on NAV CANADA's requirements and additional information, refer to the NAV CANADA Land Use Proposal website at www.navcanada.ca

I. If the proposed construction does not take place, notification is sent to Transport Canada.

Abbreviations

AMSL	Above Mean Sea Level
AGL	Above Ground Level
M.I.	Medium Intensity
H.I.	High Intensity
VFR	Visual Flight Rule

Canada

USE AND INSTRUCTIONS FOR COMPLETING FORM (continued)

Section 1 – The Owner of the structure who is responsible for installation of marking and lighting. Include name, address and phone number of a personal contact point as well as the company name.

Section 2 – The Owner's representative who is making application, if other than Section 1 Include name, address and phone number of a personal contact point as well as the company name.

Section 3 – Provide a narrative description of the proposal

(a) – MANDATORY - Indicate the type of structure. (e.g. antenna, crane, building, power line, landfill, water tank, wind farm, moored balloon, kite, catenary/cable crossing, etc.)

(b) – For overhead wires or transmission lines, include size and configuration of wires and their supporting structures (Attach depiction).

(c) – For each pole/support, include coordinates, site elevation, and structure height above ground level or water. For buildings, include site orientation, coordinates of each corner, dimensions, and construction materials. For alterations, explain the alteration thoroughly.

(d) – For a proposed wind farm, include a spreadsheet with Turbine ID, geographic coordinates (in minutes, degrees and seconds), height above ground, and ground elevation.

(e) – For existing structures, thoroughly explain the reason for notifying Transport Canada (e.g. corrections, no record on file with Transport Canada or previous study, etc.).

(f) – For Catenary crossings, the geographic coordinates for all pertinent support structures are provided along with heights AMSL and AGL including the height of wires above ground or water level.

(g) – If available, attach a copy of a documented site survey with the surveyor's certification stating the amount of vertical and horizontal accuracy in feet.

(h) - Description of surrounding environment and structures. Provide photographs of the area of intended installation.

Section 4 – Enter the name of the nearest community, city or town to the site. If the structure is or will be in a community, enter the name of that community.

Section 5 – Enter the name of the nearest aerodrome.

Section 6 – It is recommended that the nearest aerodrome be contacted to resolve any difficulties that the installation may pose to aerodrome operations.

Section 7 – (a) – New Construction would be a structure that has not yet been built.

(b) – Alteration is a change to an existing structure such as the addition of a top mounted antenna, a change to the marking and lighting, a change to power and/or frequency, or a change to the height. The nature of the alteration is included in Section 3 "Description of Proposal".

(c) – Existing would be a correction to the latitude and/or longitude, a correction to the height, or if filing on an existing structure which has not been assessed. The reason for the notice is included in Section 3 "Description of Proposal".

Section 8 – A temporary structure would be such as a crane or drilling derrick.

Section 9 – Enter the date for the start of construction.

Section 10 – Enter the time period during which the temporary structure will be in place.

Section 11 – Latitude and longitude must be geographic coordinates, to within the nearest second or to the nearest hundredth of a second if known. For accuracy of the measurement refer to the International Civil Aviation Organization (ICAO) Annex 15 *Aeronautical Information Services*. For multiple structures in a grouping, submit geographical coordinates on a seperate spreadsheet (e.g. windfarms, transmission lines)

Section 12 – Refer to Standard 621 for requirements of marking and various lighting systems.

Section 13 – Indicate the means that will be used to monitor the status of the lighting and identify the occurrence of a failure.

- Where electronic monitoring with "failure alarm" is provided, describe in Section 3 what mitigation will be applied (e.g. long life lamps and annual inspection).
- For electronic monitoring, where communication to a remote location cannot be provided, describe in Section 3 the technical reason why, along with what mitigation will be applied (e.g. long life lamps and annual inspection).

Section 14 – Indicate the form of marking and lighting that is proposed for the catenary crossing.

Section 15 – **A** – Enter the ground elevation AMSL expressed in metres and feet. This data should match the ground contour elevations for site depiction submitted under Section 3.

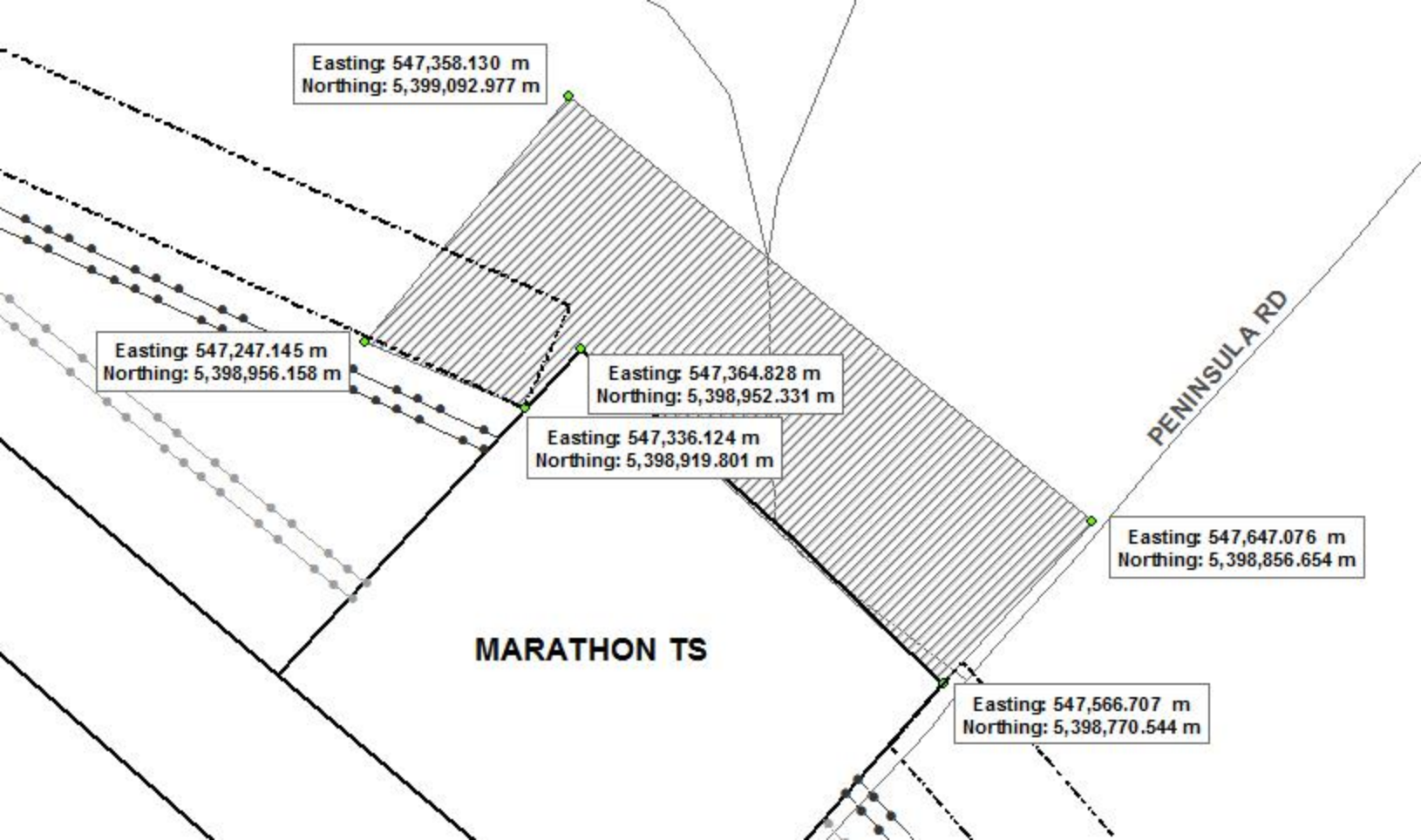
B – Enter the height of the object if it is an addition to an existing structure. The height will determine the need for lighting of this object and may affect the heights of intermediate levels of lighting on the structure.

C – Enter the total structure height AGL in metres and feet. The total structure height includes anything mounted on top of the structure, such as antennae, obstruction lights, lightning rods, etc, in addition to the structure itself.

Enter the overall height AMSL. This will be the total of **A** plus **C**.

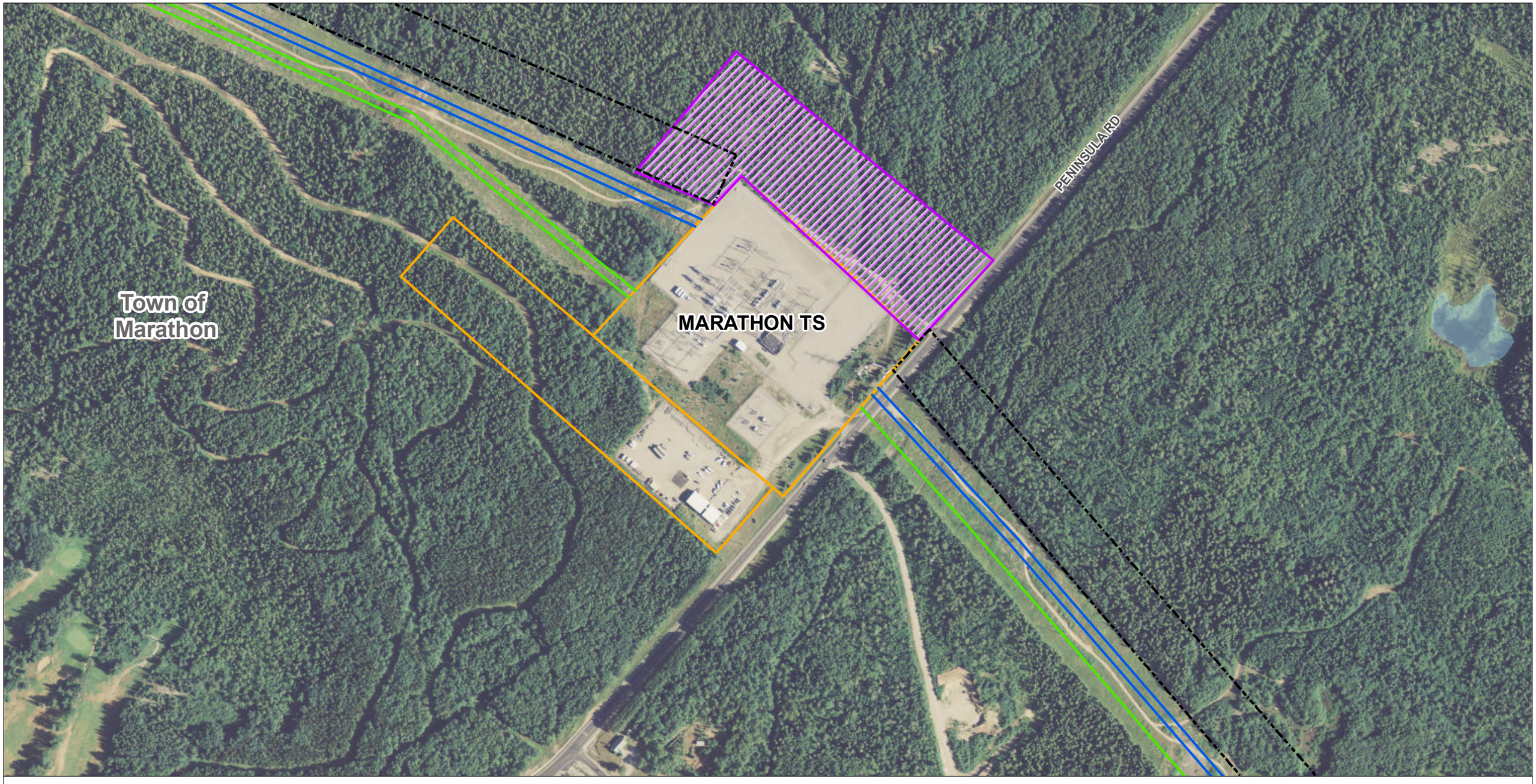
Section 16 – The survey done by a licensed surveyor attests the conformance of the object height to airport zoning surfaces for the given location.

Canada


Easting: 547,358.130 m
Northing: 5,399,092.977 m
Easting: 547,247.145 m
Northing: 5,398,956.158 m
Easting: 547,364.828 m
Northing: 5,398,952.331 m
Easting: 547,336.124 m
Northing: 5,398,919.801 m
PENINSULA RD
Easting: 547,647.076 m
Northing: 5,398,856.654 m
MARATHON TS
Easting: 547,566.707 m
Northing: 5,398,770.544 m

Proposed Marathon TS Coordinates

Coordinates – Standard UTM	Coordinates - Degree, Minute, Second
Easting: 547,358.130 m Northing: 5,399,092.977 m	Latitude: Degrees: 48 Minutes: 44 Seconds: 34.9872 Longitude: Degrees: 86 Minutes: 21 Seconds: 20.9806
Easting: 547,247.145 m Northing: 5,398, 956.158 m	Latitude: Degrees: 48 Minutes: 44 Seconds: 30.5880 Longitude: Degrees: 86 Minutes: 21 Seconds: 26.4714
Easting: 547, 336.124 m Northing: 5,398,919.801 m	Latitude: Degrees: 48 Minutes: 44 Seconds: 29.3856 Longitude: Degrees: 86 Minutes: 21 Seconds: 22.1297
Easting: 547, 364.828 m Northing: 5,398,952.331 m	Latitude: Degrees: 48 Minutes: 44 Seconds: 30.4332 Longitude: Degrees: 86 Minutes: 21 Seconds: 20.7108
Easting: 547,566.707 m Northing: 5,398,770.544 m	Latitude: Degrees: 48 Minutes: 44 Seconds: 24.4896 Longitude: Degrees: 86 Minutes: 21 Seconds: 10.9017
Easting: 547,647.076 m Northing: 5,398,856.654 m	Latitude: Degrees: 48 Minutes: 44 Seconds: 27.2580 Longitude: Degrees: 86 Minutes: 21 Seconds: 06.9309



Transmission Line

115 kV

230 kV

Proposed Station Expansion Area

Existing Hydro One Property Boundary

Proposed NextBridge Transmission Corridor

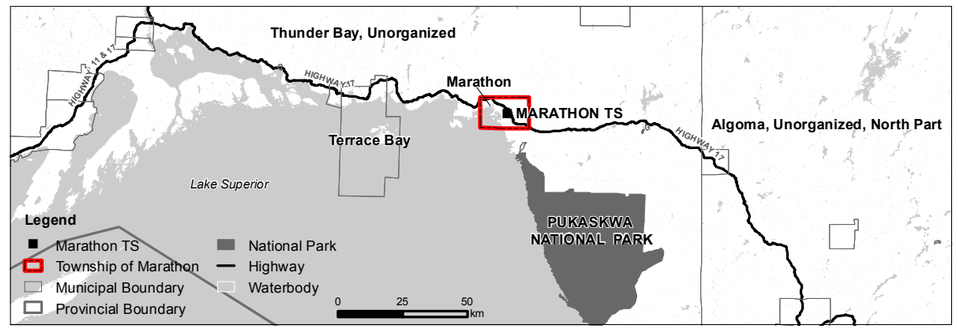
Waterbody

Produced By: Inergi LP, GIS Services
Date: Aug 22, 2017
Map 17-04_East-West_Tie_Connections_Project_MarathonTS_Expansion_GA_v2

Proposed Marathon TS Expansion - General Area Map

1:4,000

0 75 150 m



CORRESPONDENCE WITH PROVINCIAL GOVERNMENT REPRESENTATIVES AND AGENCIES

Provincial Government Representatives and Agencies

Date	Method	Stakeholder Contact(s)	Project Team Member(s)	Communication Summary
Ministry of the Environment and Climate Change				
05/12/2017	E-mail	Gillianne Marshall, Kieu Van	April Fang (Hydro One)	HONI issued a Notice of Commencement to notify the Ministry of the Environment and Climate Change (MOECC) of the commencement of the Class EA for the proposed Marathon TS Expansion Project.
05/18/2017	E-mail	Gillianne Marshall, Kieu Van	April Fang (Hydro One)	HONI e-mailed Gillianne Marshall, providing project updates and notification details.
06/27/2017	Conference Call	Adam Wright, Anneleis Eckert	April Fang, Yu San Ong (Hydro One)	HONI and MOECC – Thunder Bay District held a meeting to discuss the proposed Project and provide an overview for the new EA reviewer, Anneleis Eckert. At the meeting, HONI provided Project updates, details of the upcoming public meeting, and next steps to the MOECC.
07/14/2017	E-mail	Anneleis Eckert	April Fang (Hydro One)	HONI sent an invitation to the PIC.
01/10/2018	E-mail	Adam Wright, Anneleis Eckert	Yu San Ong (Hydro One)	HONI e-mailed MOECC with a project update regarding timelines and offered to schedule a conference call for further discussion.
01/10/2018	E-mail	Andrew Evers, Anneleis Ecker	Yu San Ong (Hydro One)	HONI requested a contact update for Adam Wright after receiving an out-of-office reply. On the same day, MOECC informed HONI that Agni Papageorgiou would be looking after the proposed Project.
01/10/2018	E-mail	Anneleis Eckert, Paula Allen	Yu San Ong (Hydro One)	Anneleis e-mailed to inform HONI that she is no longer the EA Coordinator for the proposed Project. She noted that a new EA Coordinator would be reassigned to the proposed Project.
01/12/2018	E-mail	Paula Allen	Yu San Ong (Hydro One)	MOECC informed HONI that Mira Majerovich would be looking after the proposed Project.
01/16/2018	E-mail	Anneleis Eckert, Mira Majerovich	Rachel Afonso, Yu San Ong, Stephanie Hodsoll (Hydro One)	HONI e-mailed Mira and Anneleis, offering to schedule a conference call to review the proposed Project and provide project updates. Ms. Majerovich asked if they were any new updates to the project, and Hydro One responded with a brief summary.
03/05/2018	E-mail	Mira Majerovich	Yu San Ong (Hydro One)	HONI sent the Final Notification letter.
03/05/2018	E-mail	Mira Majerovich	Rachel Afonso, Yu San Ong (Hydro One)	Ms. Majerovich responded, stating that the MOECC would be commenting on the draft ESR before the end of the comment period.
04/09/2018	E-mail	Mira Majerovich	Yu San Ong (Hydro One)	MOECC provided their formal comments on the draft ESR. MOECC was overall satisfied with the draft ESR. They commented in regards to the potential effects of the use of herbicide on the wells in adjacent properties.
05/10/2018	E-mail	Mira Majerovich	Yu San Ong (Hydro One)	Yu San sent MOECC a formal response letter to the comments received by MOECC on the draft ESR.
05/15/2018	E-mail	Mira Majerovich	Yu San Ong (Hydro One)	MOECC indicated that MOECC had no further questions on the draft ESR.
Ministry of Natural Resources and Forestry				
05/12/2017	E-mail	Kimberly McNaughton	April Fang (Hydro One)	HONI issued a Notice of Commencement to notify the Ministry of Natural Resources and Forestry (MNRF) of the commencement of the Class EA for the proposed Marathon TS Expansion Project.

Date	Method	Stakeholder Contact(s)	Project Team Member(s)	Communication Summary
04/28/2017	E-mail	Kimberly McNaughton	April Fang (Hydro One)	MNRF identified that they manage the mail-outs to interested stakeholders due to Freedom of Information and Protection of Privacy Act (FIPPA) standards. HONI stated that they would provide Notice/Letter to MNRF.
05/16/2017	E-mail	Kimberly McNaughton	April Fang, Yu San Ong (Hydro One)	MNRF e-mailed HONI, to inform that they had spoken to MNDM regarding mining claims.
06/15/2017	Conference Call	Kimberly McNaughton	April Fang, Yu San Ong (Hydro One)	HONI held a conference call with MNRF to discuss project updates. The discussion included: - Access relocation to Shack Lake & drainage requirements - Field studies (SAR, field surveys, Woodland Caribou) - General project updates (i.e. notifications, FIPPA list, etc.) - First Nations and Métis consultation update - MNDM feedback - Coordination of the two Class EA processes
07/14/2017	E-mail	Kimberly McNaughton	April Fang (Hydro One)	HONI sent an invitation to the PIC.
08/24/2017	Conference Call	Nicole Horde, Kimberly McNaughton	April Fang, Yu San Ong (Hydro One)	HONI held a conference call with MNRF to provide the project updates. The discussion included: - Updates on the access relocation to Shack Lake - Field studies results - PIC feedback - Site appraisal - General project updates
12/22/2018	E-mail	Kimberly McNaughton	Rachel Afonso, Yu San Ong (Hydro One)	HONI sent MNRF the draft ESR for their review prior to the public review period. Received by MNRF on January 9, 2018.
01/25/2018	E-mail	Kimberly McNaughton	Rachel Afonso, Yu San Ong (Hydro One)	MNRF provided comments on the draft ESR. Main points included general updates and corrections, and comments regarding Natural Heritage features, specifically SAR – Woodland Caribou.
03/05/2018	E-mail	Kimberly McNaughton	Rachel Afonso, Yu San Ong (Hydro One)	Hydro One provided formal responses to MNRF's comments on the draft ESR.
03/05/2018	E-mail	Kimberly McNaughton	Yu San Ong (Hydro One)	HONI sent the Final Notification letter. The e-mail also provided a list of stakeholders who would be receiving the letters and newspaper ads. Hydro One requested that MNRF also distribute the Notice of Completion to the members on their internal FIPPA list. MNRF then sent out the letters on March 9, 2018.
03/14/2018	E-mail	Kimberly	Rachel Afonso, Yu San	HONI followed up regarding the draft ESR, welcoming any further comments, and offered to schedule a conference call to further discuss.

Date	Method	Stakeholder Contact(s)	Project Team Member(s)	Communication Summary
		McNaughton	Ong (Hydro One)	
04/10/2018	E-mail	Kimberly McNaughton	Yu San Ong, Rachel Afonso (Hydro One)	HONI provided an update to the draft ESR public review period: - Comments received - Update on the community meeting with Garden River First Nation - MOECC formal comments HONI additionally asked if MNRF had any further comments on the draft ESR.
04/20/2018	E-mail	Kimberly McNaughton	Yu San Ong, Rachel Afonso (Hydro One)	HONI sent MNRF the draft meeting minutes from the April 3 community meeting with Garden River First Nation.
05/31/2018	Conference Call	Kimberly McNaughton	Yu San Ong, Rachel Afonso (Hydro One)	HONI and MNRF held a conference call to discuss the comments received by Garden River First Nation on the draft ESR.
06/05/2018	E-mail	Kimberly McNaughton	Yu San Ong, Rachel Afonso (Hydro One)	HONI sent MNRF their draft responses to Garden River First Nation for MNRF's review and comment.
06/12/2017	E-mail	Kimberly McNaughton	Yu San Ong, Rachel Afonso (Hydro One)	MNRF sent HONI the draft responses to Garden River First Nation with suggested edits.
06/27/2018	E-mail	Kimberly McNaughton	Yu San Ong, Rachel Afonso (Hydro One)	HONI sent MNRF their finalized responses to Garden River First Nation for a final confirmation prior to sending them to the community.
07/16/2018	E-mail	Kimberly McNaughton	Yu San Ong, Rachel Afonso (Hydro One)	MNRF responded, stating that the responses were sufficient.
Ministry of Tourism Culture and Sport				
05/12/2017	E-mail	Karla Barboza, Joseph Muller	April Fang (Hydro One)	HONI issued a Notice of Commencement to notify the Ministry of Tourism, Culture and Sport (MTCS) of the commencement of the Class EA for the proposed Marathon TS Expansion Project.
06/19/2017	E-mail	Joseph Muller	April Fang (Hydro One)	MTCS responded to the Notice of Commencement and provided comments regarding the proposed project, requesting that HONI complete the MTCS *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscape* checklist.
06/23/2017	E-mail	Joseph Muller	April Fang, Yu San Ong (Hydro One)	HONI responded to MTCS, stating that they would complete the required checklists and address all comments throughout the EA process.
07/14/2017	E-mail	Karla Barboza, Joseph Muller	April Fang (Hydro One)	HONI sent an invitation to the PIC.
7/27/2017	E-mail	Joseph Muller	April Fang, Yu San Ong (Hydro One)	HONI sent the completed checklist for Built Heritage Resources and Cultural Heritage Landscapes to MTCS. HONI also stated that there is no archaeological potential on the expansion area due to NextBridge's Stage 1 Archaeological Report, and attached a map for reference.

Date	Method	Stakeholder Contact(s)	Project Team Member(s)	Communication Summary
08/23/2017	E-mail	Joseph Muller	April Fang (Hydro One)	MTCS responded, stating that there were no further comments about the project.
03/05/2018	E-mail	Karla Barboza, Joseph Muller	Yu San Ong (Hydro One)	HONI sent the Final Notification letter.
Ministry of Northern Development and Mines				
05/12/2017	E-mail	Nicole Beaudry, Priya Tandon, Stephanie Rocca	April Fang (Hydro One)	HONI issued a Notice of Commencement to notify the Ministry of Northern Development and Mines (MNDM) of the commencement of the Class EA for the proposed Marathon TS Expansion Project.
05/18/2017	E-mail	Stephanie Rocca	April Fang (Hydro One)	MNDM informed HONI that they would be submitting comments for the project. MNDM was also seeking confirmation that the Municipality was provided the same/similar notice for the project and would have the opportunity to comment.
05/18/2017	E-mail	Stephanie Rocca	April Fang (Hydro One)	HONI responded, stating that they had been in touch with the Town of Marathon throughout the project, and were sent the Notice of Commencement letter.
06/07/2017	E-mail	Nicole Beaudry	April Fang (Hydro One)	MNDM responded to the Notice of Commencement. MNDM identified that a NextBridge withdrawal for the East-West Transmission project is within the Project area and provided a sketch of the area of activity.
06/07/2017	E-mail	Nicole Beaudry	April Fang, Yu San Ong (Hydro One)	HONI responded to MNDM, stating that the work will be limited to station expansion (no transmission line involved). HONI also asked if MNDM was interested in receiving receipt of any future project related notifications.
06/07/2017	E-mail	Nicole Beaudry	April Fang (Hydro One)	MNDM stated that no further correspondence is necessary, and that MNDM is being kept in the loop by CanAre and NextBridge.
06/22/2017	E-mail	Stephanie Rocca	April Fang (Hydro One)	MNDM provided comments on the Class EA for the Marathon TS Expansion Project. Comments included that there were no concerns with respect to the geology or mineral resource potential in the area and to bring attention that HONI had been in contact with the claimholder of a mineral occurrence 1 km from the expansion site.
Ministry of Energy				
05/12/2017	E-mail	Shannon McCabe	April Fang (Hydro One)	HONI issued a Notice of Commencement to notify the Ministry of Energy of the commencement of the Class EA for the proposed Marathon TS Expansion Project.
07/14/2017	E-mail	Shannon McCabe	April Fang (Hydro One)	HONI sent an invitation to the PIC.
03/05/2018	E-mail	Shannon McCabe	Yu San Ong (Hydro One)	HONI sent the Final Notification letter.
04/19/2018	E-mail	Shannon McCabe	Devi Shantilal, Yu San Ong , Christine Goulais (Hydro One)	HONI e-mailed the Ministry of Energy to advise on the consultation being undertaken with Garden River First Nation. HONI provided a summary of all correspondence with the community, including the community meeting for the draft ESR review period and the extension provided. Hydro One additionally attached the draft questions and answers meeting notes from the April 3 community meeting.
Ministry of Housing				
05/12/2017	E-mail	Victoria Kosny	April Fang (Hydro One)	HONI issued a Notice of Commencement to notify the Ministry of Housing of the commencement of the Class EA for the proposed Marathon TS Expansion Project.
07/14/2017	E-mail	Victoria Kosny	April Fang (Hydro One)	HONI sent an invitation to the PIC.
03/05/2018	E-mail	Victoria Kosny	Yu San Ong (Hydro One)	HONI sent the Final Notification letter.
Ministry of Municipal Affairs and Housing				

Date	Method	Stakeholder Contact(s)	Project Team Member(s)	Communication Summary
05/12/2017	E-mail	Victor Doyle	April Fang (Hydro One)	HONI issued a Notice of Commencement to notify the Ministry of Municipal Affairs and Housing of the commencement of the Class EA for the proposed Marathon TS Expansion Project.
05/12/2017	E-mail	Victor Doyle	April Fang (Hydro One)	HONI issued a Notice of Commencement to notify the Ministry of Municipal Affairs and Housing (MMAH), Toronto Office to notify of the commencement of the Class EA for the proposed Marathon TS Expansion Project.
07/14/2017	E-mail	Victor Doyle	April Fang (Hydro One)	HONI sent an invitation to the PIC.
03/05/2018	E-mail	Victor Doyle	Yu San Ong (Hydro One)	HONI sent the Final Notification letter.
03/06/2018	E-mail	Carly Steinman	Yu San Ong (Hydro One)	HONI re- sent the Final Notification letter to the new manager, Carly Steinman.
Legislature of Ontario				
07/13/2017	E-mail	Michael Gravelle	Simmer Anand (Hydro One)	HONI external relations notified the Member of Provincial Parliament (Thunder Bay—Superior North) for the area regarding the upcoming PIC public meeting for the Project. Details on the Project and public meeting were provided. HONI inquired whether there is an interest in attending the PIC public meeting or a meeting with the Project Team in advance.

Ontario

Ministry of Tourism, Culture and Sport

Programs & Services Branch
401 Bay Street, Suite 1700
Toronto ON M7A 0A7

Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes

A Checklist for the Non-Specialist

The **purpose of the checklist** is to determine:

- if a property(ies) or project area:
  - is a recognized heritage property
  - may be of cultural heritage value
- it includes all areas that may be impacted by project activities, including – but not limited to:
  - the main project area
  - temporary storage
  - staging and working areas
  - temporary roads and detours

Processes covered under this checklist, such as:

- *Planning Act*
- *Environmental Assessment Act*
- *Aggregates Resources Act*
- *Ontario Heritage Act* – Standards and Guidelines for Conservation of Provincial Heritage Properties

Cultural Heritage Evaluation Report (CHER)

If you are not sure how to answer one or more of the questions on the checklist, you may want to hire a qualified person(s) (see page 5 for definitions) to undertake a cultural heritage evaluation report (CHER).

The CHER will help you:

- identify, evaluate and protect cultural heritage resources on your property or project area
- reduce potential delays and risks to a project

Other checklists

Please use a separate checklist for your project, if:

- you are seeking a Renewable Energy Approval under Ontario Regulation 359/09 – separate checklist
- your Parent Class EA document has an approved screening criteria (as referenced in Question 1)

Please refer to the Instructions pages for more detailed information and when completing this form.

Project or Property Name

Proposed Marathon Transformer Station Expansion

Project or Property Location (upper and lower or single tier municipality)

Marathon, ON

Proponent Name

Hydro One Networks Inc.

Proponent Contact Information

483 Bay Street, Toronto, ON, M5G 2P5

Screening Questions

	Yes	No
1. Is there a pre-approved screening checklist, methodology or process in place?	☐	☑

If Yes, please follow the pre-approved screening checklist, methodology or process.

If No, continue to Question 2.

Part A: Screening for known (or recognized) Cultural Heritage Value

	Yes	No
2. Has the property (or project area) been evaluated before and found **not** to be of cultural heritage value?	☐	☑

If Yes, do **not** complete the rest of the checklist.

The proponent, property owner and/or approval authority will:

- summarize the previous evaluation and
- add this checklist to the project file, with the appropriate documents that demonstrate a cultural heritage evaluation was undertaken

The summary and appropriate documentation may be:

- submitted as part of a report requirement
- maintained by the property owner, proponent or approval authority

If No, continue to Question 3.

	Yes	No
3. Is the property (or project area):		
a. identified, designated or otherwise protected under the *Ontario Heritage Act* as being of cultural heritage value?	☐	☑
b. a National Historic Site (or part of)?	☐	☑
c. designated under the *Heritage Railway Stations Protection Act*?	☐	☑
d. designated under the *Heritage Lighthouse Protection Act*?	☐	☑
e. identified as a Federal Heritage Building by the Federal Heritage Buildings Review Office (FHBRO)?	☐	☑
f. located within a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site?	☐	☑

If Yes to any of the above questions, you need to hire a qualified person(s) to undertake:

- a Cultural Heritage Evaluation Report, if a Statement of Cultural Heritage Value has not previously been prepared or the statement needs to be updated

If a Statement of Cultural Heritage Value has been prepared previously and if alterations or development are proposed, you need to hire a qualified person(s) to undertake:

- a Heritage Impact Assessment (HIA) – the report will assess and avoid, eliminate or mitigate impacts

If No, continue to Question 4.

Part B: Screening for Potential Cultural Heritage Value

	Yes	No
4. Does the property (or project area) contain a parcel of land that:		
a. is the subject of a municipal, provincial or federal commemorative or interpretive plaque?	☐	☑
b. has or is adjacent to a known burial site and/or cemetery?	☐	☑
c. is in a Canadian Heritage River watershed?	☐	☑
d. contains buildings or structures that are 40 or more years old?	☐	☑

Part C: Other Considerations

	Yes	No
5. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area):		
a. is considered a landmark in the local community or contains any structures or sites that are important in defining the character of the area?	☐	☑
b. has a special association with a community, person or historical event?	☐	☑
c. contains or is part of a cultural heritage landscape?	☐	☑

If Yes to one or more of the above questions (Part B and C), there is potential for cultural heritage resources on the property or within the project area.

You need to hire a qualified person(s) to undertake:

- a Cultural Heritage Evaluation Report (CHER)

If the property is determined to be of cultural heritage value and alterations or development is proposed, you need to hire a qualified person(s) to undertake:

- a Heritage Impact Assessment (HIA) – the report will assess and avoid, eliminate or mitigate impacts

If No to all of the above questions, there is low potential for built heritage or cultural heritage landscape on the property.

The proponent, property owner and/or approval authority will:

- summarize the conclusion
- add this checklist with the appropriate documentation to the project file

The summary and appropriate documentation may be:

- submitted as part of a report requirement e.g. under the *Environmental Assessment Act, Planning Act* processes
- maintained by the property owner, proponent or approval authority

Instructions

Please have the following available, when requesting information related to the screening questions below:

- a clear map showing the location and boundary of the property or project area
  - large scale and small scale showing nearby township names for context purposes
- the municipal addresses of all properties within the project area
- the lot(s), concession(s), and parcel number(s) of all properties within a project area

For more information, see the Ministry of Tourism, Culture and Sport's Ontario Heritage Toolkit or Standards and Guidelines for Conservation of Provincial Heritage Properties.

In this context, the following definitions apply:

- **qualified person(s)** means individuals – professional engineers, architects, archaeologists, etc. – having relevant, recent experience in the conservation of cultural heritage resources.
- **proponent** means a person, agency, group or organization that carries out or proposes to carry out an undertaking or is the owner or person having charge, management or control of an undertaking.

1. Is there a pre-approved screening checklist, methodology or process in place?

An existing checklist, methodology or process may already be in place for identifying potential cultural heritage resources, including:

- one endorsed by a municipality
- an environmental assessment process e.g. screening checklist for municipal bridges
- one that is approved by the Ministry of Tourism, Culture and Sport (MTCS) under the Ontario government's Standards & Guidelines for Conservation of Provincial Heritage Properties [s.B.2.]

Part A: Screening for known (or recognized) Cultural Heritage Value

2. Has the property (or project area) been evaluated before and found not to be of cultural heritage value?

Respond 'yes' to this question, if all of the following are true:

A property can be considered not to be of cultural heritage value if:

- a Cultural Heritage Evaluation Report (CHER) - or equivalent - has been prepared for the property with the advice of a qualified person and it has been determined not to be of cultural heritage value and/or
- the municipal heritage committee has evaluated the property for its cultural heritage value or interest and determined that the property is not of cultural heritage value or interest

A property may need to be re-evaluated, if:

- there is evidence that its heritage attributes may have changed
- new information is available
- the existing Statement of Cultural Heritage Value does not provide the information necessary to manage the property
- the evaluation took place after 2005 and did not use the criteria in Regulations 9/06 and 10/06

Note: Ontario government ministries and public bodies [prescribed under Regulation 157/10] may continue to use their existing evaluation processes, until the evaluation process required under section B.2 of the Standards & Guidelines for Conservation of Provincial Heritage Properties has been developed and approved by MTCS.

To determine if your property or project area has been evaluated, contact:

- the approval authority
- the proponent
- the Ministry of Tourism, Culture and Sport

3a. Is the property (or project area) identified, designated or otherwise protected under the *Ontario Heritage Act* as being of cultural heritage value e.g.:

i. designated under the *Ontario Heritage Act*

- individual designation (Part IV)
- part of a heritage conservation district (Part V)

Individual Designation – Part IV

A property that is designated:

- by a municipal by-law as being of cultural heritage value or interest [s.29 of the *Ontario Heritage Act*]
- by order of the Minister of Tourism, Culture and Sport as being of cultural heritage value or interest of provincial significance [s.34.5]. **Note**: To date, no properties have been designated by the Minister.

Heritage Conservation District – Part V

A property or project area that is located within an area designated by a municipal by-law as a heritage conservation district [s. 41 of the *Ontario Heritage Act*].

For more information on Parts IV and V, contact:

- municipal clerk
- Ontario Heritage Trust
- local land registry office (for a title search)

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ii. subject of an agreement, covenant or easement entered into under Parts II or IV of the *Ontario Heritage Act*

An agreement, covenant or easement is usually between the owner of a property and a conservation body or level of government. It is usually registered on title.

The primary purpose of the agreement is to:

- preserve, conserve, and maintain a cultural heritage resource
- prevent its destruction, demolition or loss

For more information, contact:

- Ontario Heritage Trust - for an agreement, covenant or easement [clause 10 (1) (c) of the *Ontario Heritage Act*]
- municipal clerk – for a property that is the subject of an easement or a covenant [s.37 of the *Ontario Heritage Act*]
- local land registry office (for a title search)

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iii. listed on a register of heritage properties maintained by the municipality

Municipal registers are the official lists - or record - of cultural heritage properties identified as being important to the community.

Registers include:

- all properties that are designated under the *Ontario Heritage Act* (Part IV or V)
- properties that have not been formally designated, but have been identified as having cultural heritage value or interest to the community

For more information, contact:

- municipal clerk
- municipal heritage planning staff
- municipal heritage committee

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iv. subject to a notice of:

- intention to designate (under Part IV of the *Ontario Heritage Act*)
- a Heritage Conservation District study area bylaw (under Part V of the *Ontario Heritage Act*)

A property that is subject to a **notice of intention to designate** as a property of cultural heritage value or interest and the notice is in accordance with:

- section 29 of the *Ontario Heritage Act*
- section 34.6 of the *Ontario Heritage Act*. **Note**: To date, the only applicable property is Meldrum Bay Inn, Manitoulin Island. [s.34.6]

An area designated by a municipal by-law made under section 40.1 of the *Ontario Heritage Act* as a **heritage conservation district study area**.

For more information, contact:

- municipal clerk – for a property that is the subject of notice of intention [s. 29 and s. 40.1]
- Ontario Heritage Trust

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v. included in the Ministry of Tourism, Culture and Sport's list of provincial heritage properties

Provincial heritage properties are properties the Government of Ontario owns or controls that have cultural heritage value or interest.

The Ministry of Tourism, Culture and Sport (MTCS) maintains a list of all provincial heritage properties based on information provided by ministries and prescribed public bodies. As they are identified, MTCS adds properties to the list of provincial heritage properties.

For more information, contact the MTCS Registrar at registrar@ontario.ca.

3b. Is the property (or project area) a National Historic Site (or part of)?

National Historic Sites are properties or districts of national historic significance that are designated by the Federal Minister of the Environment, under the *Canada National Parks Act*, based on the advice of the Historic Sites and Monuments Board of Canada.

For more information, see the National Historic Sites website.

3c. Is the property (or project area) designated under the *Heritage Railway Stations Protection Act*?

The *Heritage Railway Stations Protection Act* protects heritage railway stations that are owned by a railway company under federal jurisdiction. Designated railway stations that pass from federal ownership may continue to have cultural heritage value.

For more information, see the Directory of Designated Heritage Railway Stations.

3d. Is the property (or project area) designated under the *Heritage Lighthouse Protection Act*?

The *Heritage Lighthouse Protection Act* helps preserve historically significant Canadian lighthouses. The Act sets up a public nomination process and includes heritage building conservation standards for lighthouses which are officially designated.

For more information, see the Heritage Lighthouses of Canada website.

3e. Is the property (or project area) identified as a Federal Heritage Building by the Federal Heritage Buildings Review Office?

The role of the Federal Heritage Buildings Review Office (FHBRO) is to help the federal government protect the heritage buildings it owns. The policy applies to all federal government departments that administer real property, but not to federal Crown Corporations.

For more information, contact the Federal Heritage Buildings Review Office.

See a directory of all federal heritage designations.

3f. Is the property (or project area) located within a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site?

A UNESCO World Heritage Site is a place listed by UNESCO as having outstanding universal value to humanity under the Convention Concerning the Protection of the World Cultural and Natural Heritage. In order to retain the status of a World Heritage Site, each site must maintain its character defining features.

Currently, the Rideau Canal is the only World Heritage Site in Ontario.

For more information, see Parks Canada – World Heritage Site website.

Part B: Screening for potential Cultural Heritage Value

4a. Does the property (or project area) contain a parcel of land that has a municipal, provincial or federal commemorative or interpretive plaque?

Heritage resources are often recognized with formal plaques or markers.

Plaques are prepared by:

- municipalities
- provincial ministries or agencies
- federal ministries or agencies
- local non-government or non-profit organizations

For more information, contact:

- municipal heritage committees or local heritage organizations – for information on the location of plaques in their community
- Ontario Historical Society's Heritage directory – for a list of historical societies and heritage organizations
- Ontario Heritage Trust – for a list of plaques commemorating Ontario's history
- Historic Sites and Monuments Board of Canada – for a list of plaques commemorating Canada's history

4b. Does the property (or project area) contain a parcel of land that has or is adjacent to a known burial site and/or cemetery?

For more information on known cemeteries and/or burial sites, see:

- Cemeteries Regulations, Ontario Ministry of Consumer Services – for a database of registered cemeteries
- Ontario Genealogical Society (OGS) – to locate records of Ontario cemeteries, both currently and no longer in existence; cairns, family plots and burial registers
- Canadian County Atlas Digital Project – to locate early cemeteries

In this context, adjacent means contiguous or as otherwise defined in a municipal official plan.

4c. Does the property (or project area) contain a parcel of land that is in a Canadian Heritage River watershed?

The Canadian Heritage River System is a national river conservation program that promotes, protects and enhances the best examples of Canada's river heritage.

Canadian Heritage Rivers must have, and maintain, outstanding natural, cultural and/or recreational values, and a high level of public support.

For more information, contact the Canadian Heritage River System.

If you have questions regarding the boundaries of a watershed, please contact:

- your conservation authority
- municipal staff

4d. Does the property (or project area) contain a parcel of land that contains buildings or structures that are 40 or more years old?

A 40 year 'rule of thumb' is typically used to indicate the potential of a site to be of cultural heritage value. The approximate age of buildings and/or structures may be estimated based on:

- history of the development of the area
- fire insurance maps
- architectural style
- building methods

Property owners may have information on the age of any buildings or structures on their property. The municipality, local land registry office or library may also have background information on the property.

Note: 40+ year old buildings or structure do not necessarily hold cultural heritage value or interest; their age simply indicates a higher potential.

A building or structure can include:

- residential structure
- farm building or outbuilding
- industrial, commercial, or institutional building
- remnant or ruin
- engineering work such as a bridge, canal, dams, etc.

For more information on researching the age of buildings or properties, see the Ontario Heritage Tool Kit Guide Heritage Property Evaluation.

Part C: Other Considerations

5a. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area) is considered a landmark in the local community or contains any structures or sites that are important to defining the character of the area?

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has potential landmarks or defining structures and sites, for instance:

- buildings or landscape features accessible to the public or readily noticeable and widely known
- complexes of buildings
- monuments
- ruins

5b. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area) has a special association with a community, person or historical event?

Local or Aboriginal knowledge may reveal that the project location is situated on a parcel of land that has a special association with a community, person or event of historic interest, for instance:

- Aboriginal sacred site
- traditional-use area
- battlefield
- birthplace of an individual of importance to the community

5c. Is there local or Aboriginal knowledge or accessible documentation suggesting that the property (or project area) contains or is part of a cultural heritage landscape?

Landscapes (which may include a combination of archaeological resources, built heritage resources and landscape elements) may be of cultural heritage value or interest to a community.

For example, an Aboriginal trail, historic road or rail corridor may have been established as a key transportation or trade route and may have been important to the early settlement of an area. Parks, designed gardens or unique landforms such as waterfalls, rock faces, caverns, or mounds are areas that may have connections to a particular event, group or belief.

For more information on Questions 5.a., 5.b. and 5.c., contact:

- Elders in Aboriginal Communities or community researchers who may have information on potential cultural heritage resources. Please note that Aboriginal traditional knowledge may be considered sensitive.
- municipal heritage committees or local heritage organizations
- Ontario Historical Society's "Heritage Directory" - for a list of historical societies and heritage organizations in the province

An internet search may find helpful resources, including:

- historical maps
- historical walking tours
- municipal heritage management plans
- cultural heritage landscape studies
- municipal cultural plans

Information specific to trails may be obtained through Ontario Trails.

From:	SHANTILAL Devi
To:	Shannon.McCabe@ontario.ca
Cc:	GOULAIS Christine; ONG Yu-San
Subject:	RE: Marathon TS- Garden River First Nation
Date:	Thursday, April 19, 2018 4:10:31 PM
Attachments:	Marathon TS Expansion - GRFN Presentation April 3 questions and answers - April 19 2018.pdf

Good afternoon Shannon,

This is to inform you that Garden River First Nation (GRFN) expressed interest in the proposed Marathon Transformer Station (TS) Expansion Project last summer upon receiving the project notification letter in March 2017. The terms of the capacity funding were agreed upon in May 2017. The funding will be released to GRFN upon receipt of an invoice that aligns with the items listed in the original budget along with all supporting receipts and documentation. Thereafter, we offered to meet and discuss the project at every project milestones via follow-up emails. In early July 2017, we notified them of the Public Information Centre (which took place in late July in the Town of Marathon) and offered to meet; in September 2017 we emailed them while preparing for draft Environmental Study Report (ESR) release to the Ministry of Natural Resources and Forestry (MNRF). In February 2018, prior to the review and comment period officially began, we emailed and offered to meet. Finally, as part of the Class Environmental Assessment (EA) process for the proposed Marathon TS Expansion Project we emailed the draft ESR to GRFN for a 30-day review and comment period starting on March 9, 2018.

During the review period, on April 3, 2018, Hydro One was invited to present the proposed project to GRFN during a community engagement session at the Garden River Community Centre. Chief Paul Syrette, Council members, staff members, and a number of GRFN community members attended the session. Including three Hydro One staff, approximately 25 individuals were present at the session.

During the meeting, GRFN indicated that the meeting should not be considered consultation or accommodation and that it should be treated as an information sharing session. Many questions and concerns were raised, and they requested an extension of 30 days for submission of comments for the draft ESR. Hydro One has provided them with the requested extension.

The issue of purchase of land adjacent to the existing Marathon TS from the MNRF was brought up. They were interested in learning about the consultation process undertaken by the Crown. They inquired about Hydro One's consultation process and re-affirmed their interest in the project area several times during the meeting. The Duty to Consult and Accommodate was also mentioned several times. Hydro One clarified that Garden River First Nation had been identified by the Crown as a community for interest-based engagement. The community indicated that they had interests in the area and would like some time to regroup internally.

A draft summary of notes (questions and answers) compiled by Hydro One is included herewith for your reference. Please note that this is not an official set of meeting minutes. We have just sent this document to GRFN as well.

Best Regards,
Devi

Devi Shantilal
Senior Advisor
Indigenous Relations
Hydro One Networks Inc.
483 Bay Street
South Tower, 6th Floor
Toronto, ON M5G 2P5
PH: (416) 345-4394
FX: (416) 345 6919
Email: Devi.Shantilal@HydroOne.com
website: www.hydroone.com/firstnationsmetis

From: McCabe, Shannon (ENERGY) [mailto:Shannon.McCabe@ontario.ca]
Sent: Thursday, January 26, 2017 12:08 PM
To: CHARBONNEAU Daniel
Cc: Gibson, Amy (ENERGY); OLDEWENING Robyn; SHANTILAL Devi; SOULIERE Sara Jane
Subject: Marathon TS

Good afternoon Daniel,

Attached you will find the Ministry of Energy's response to your letter regarding Hydro One's proposed work at the Marathon Transformer Station. Thank you for the opportunity to comment.

Based on currently available information and the information provided by Hydro One, the Ministry has identified the following communities that should be consulted on the basis that they have or may have constitutionally protected Aboriginal treaty rights that may be adversely impacted by the project:

- Ojibways of Pic River First Nation
- Pic Mobert First Nation
- Pays Plat First Nation
- MNO Superior North Shore Métis Council
- MNO Thunder Bay Métis Council
- MNO Greenstone Métis Council
- Métis Nation of Ontario

Please see the attached response for further details.

The Ministry is also aware of other communities, some of which were also listed in your September 28, 2016 letter, that may be interested in this project given its connection to the East West Tie transmission line project currently under

development. Therefore, the Ministry encourages Hydro One to consider including the following communities in any interest-based engagement efforts:

- Animbiigoo Zaagi'igan Anishinaabek
- Biinjitiwaabik Zaaging Anishinaabek
- Bingwi Neyaashi Anishinaabek
- Fort William First Nation
- Ginoogaming First Nation
- Long Lake No. 58 First Nation
- Michipicoten First Nation
- Missanabie Cree First Nation
- Ojibways of Batchewana
- Ojibways of Garden River
- Red Rock First Nation
- Red Sky Métis Independent Nation

If you have any further questions or concerns, or you would like to discuss, please do not hesitate to contact me.

Best regards,

Shannon

Shannon McCabe
Senior Advisor
Indigenous Energy Policy
Ministry of Energy
(416) 212-6704
77 Grenville Street, 6th Floor, Toronto, ON M7A 2C1

CORRESPONDENCE WITH MUNICIPAL GOVERNMENT REPRESENTATIVES AND AGENCIES

Municipal Government Representatives and Agencies

Date	Method	Stakeholder Contact(s)	Project Team Member(s)	Communication Summary
Town of Marathon				
03/20/2017	E-mail	Daryl Skworchinski	Stephanie Hodsoll (Hydro One)	HONI contacted the Town of Marathon's Chief Administrative Officer (CAO) to setup a meeting (teleconference). The purpose of the meeting would be to provide for the purpose of introductions, to discuss communications process with the staff at the Town of Marathon, including the approach to pre-consultation.
03/29/2017	Teleconference	Daryl Skworchinski, Brian Hyshka	Stephanie Hodsoll, April Fang, Yu San Ong, Arnold Brakel, Tausha Esquega (Hydro One)	The Project Manager, Indigenous Relations Coordinator, Community Relations Officer, and Environmental Planners for the project held a teleconference with the Works & Operations Manager and CAO (Town of Marathon). Discussions included a project overview, Shake Lake access trail and contact list information.
05/15/2017	E-mail	Brian Hyshka	April Fang (Hydro One)	HONI issued a Notice of Commencement to notify the Town of Marathon Works and Operations Manager of the commencement of a Class EA for the proposed Marathon TS Expansion Project.
07/14/2017	E-mail	Brian Hyshka	April Fang (Hydro One)	HONI sent an invitation to the PIC.
07/24/2017	In-person meeting	Town of Marathon	April Fang, Yu San Ong, Stephanie Hodsoll (Hydro One)	HONI attended the Municipal Matters meeting In the Town of Marathon to answer any questions and invited Marathon residents to the PIC.
08/10/2017	Conference Call	Daryl Skworchinski	April Fang, Yu San Ong, Stephanie Hodsoll (Hydro One)	HONI held a conference call with the Town of Marathon's CAO. General project related questions that the CAO had were answered. Consultation activities were discussed, a PIC update was provided as well as a summary of PIC comments received.
02/20/2018	E-mail	Daryl Skworchinski, Brian Hyshka	Yu San Ong (Hydro One)	HONI e-mailed the Works & Operations Manager and CAO (Town of Marathon), inquiring if any staff/department at the Town would like to be circulated on the finalized design plans for the proposed Shack Lake trail. HONI also provided an update on the Class EA process, the draft ESR Public Review Period, and when tree removal and construction could begin.
02/20/2018	E-mail	Daryl Skworchinski, Brian Hyshka	Yu San Ong (Hydro One)	Mr. Skworchinski responded, confirming that the Town of Marathon would like to see the finalized design plans for the proposed relocated trail.
03/05/2018	E-mail	Daryl Skworchinski, Brian Hyshka	Yu San Ong (Hydro One)	HONI sent the Final Notification letter.
03/05/2018	E-mail	Mayor Rick Dumas, Brian Hyshka	Stephanie Hodsoll (Hydro One)	HONI sent the Final Notification letter.
03/26/2018	E-mail	Daryl Skworchinski, Brian Hyshka	Yu San Ong (Hydro One)	HONI sent the grading plan for the proposed new relocated Shack Lake access trail.

Marathon Transformer Station Expansion Project

Town of Marathon

March 29, 2017

Goals of today's meeting

- Discuss the Class Environmental Assessment that Hydro One will be initiating to expand Marathon Transformer Station (TS)

- Review our proposed notification, communication and consultation plan

- Seek your input on communication with local residents and recreational users, and identify local groups that should be included in our consultation

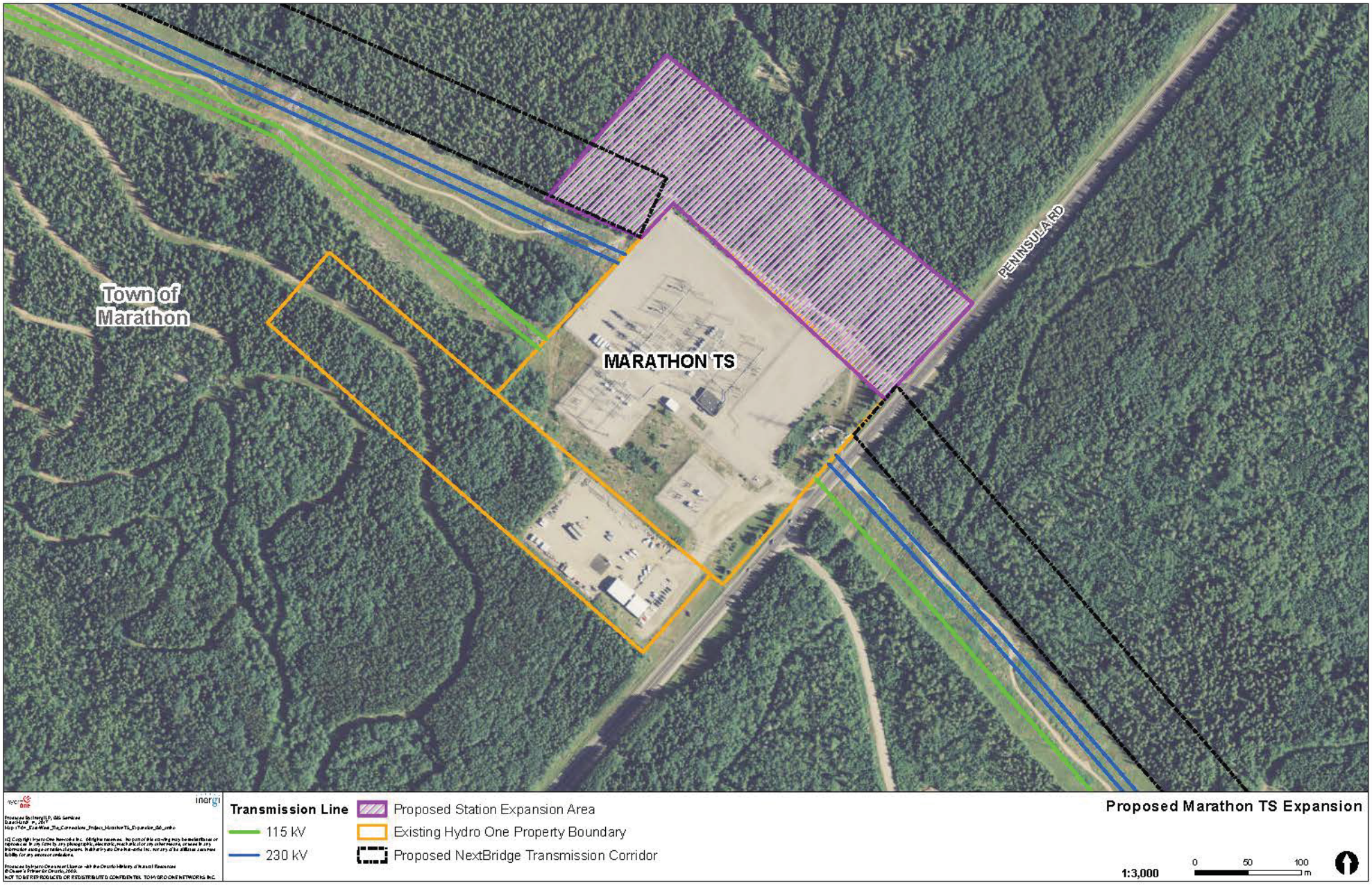
Project Description

- Hydro One is initiating a Class Environmental Assessment (EA) to expand the existing Marathon TS by approximate five hectares
  - Hydro One will seek to acquire this land from the Ministry of Natural Resources and Forestry (MNRF)

- This is required to support NextBridge Infrastructure's proposed new East-West Tie Transmission Project

- In addition to connecting the two new East-West Tie circuits at Marathon TS, the station configuration will be revised and new equipment will be installed
  - To accommodate the new station footprint, the station fence will be moved

General area map



Approvals Process

- This project is subject to the provincial *Environmental Assessment Act* and will be planned in accordance with the *Class Environmental Assessment for Minor Transmission Facilities,* and coordinated with the *Class EA for Resource Stewardship and Facility Development Projects.*

- Section 92 approval is required from the Ontario Energy Board.

- Consultation with elected officials, government agencies, First Nation communities, interest groups and the public is an important part of the Class EA process - we will provide various opportunities for input on the project.

- A biodiversity initiative is planned – we will work with the municipality, local groups and the MNRF to determine areas to create habitat and enhance the natural environment. This initiative is meant to compensate for the effects to the natural environment that cannot be avoided or mitigated.

Approvals Process

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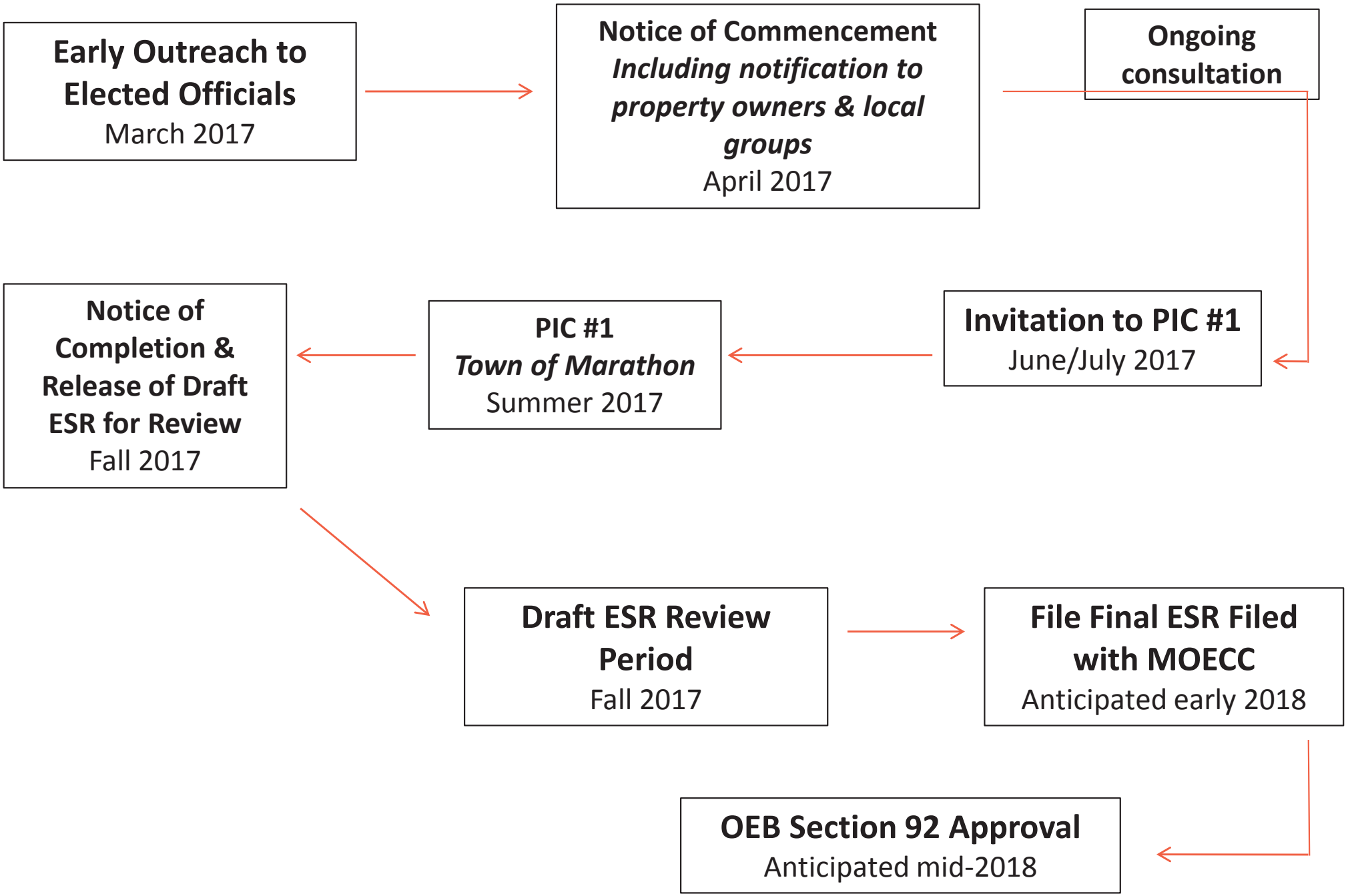
- Consultation with elected officials, government agencies, First Nation communities, interest groups and the public is an important part of the Class EA process - we will provide various opportunities for input on the project.

- A biodiversity initiative is planned – we will work with the municipality, local groups and the MNRF to determine areas to create habitat and enhance the natural environment. This initiative is meant to compensate for the effects to the natural environment that cannot be avoided or mitigated.

Our Proposed Path Forward



Communication is Key

As we begin this project, our goal is to ensure:

- 'No surprises' approach for local elected officials
- Pre-consultation and ongoing communication with local elected officials to share and discuss project activities, communications tactics and identify potential issues/resolutions
- Clear and timely notification to local residents, local groups and potentially impacted or interested stakeholders
- Engage in personalized or face–face contact as much as possible
- Employ a variety of communication tools and tactics
- Remain open and accessible – Hydro One contact information will allow questions and concerns to be addressed by the appropriate staff specialist in a timely manner

Communicating as we Launch the Project

- Offer meetings with interested associations, local groups etc. – Ongoing
- Public Information Centre – planned for summer 2017
- Newspaper ads (Notice of Commencement, PIC invitation, Draft ESR review period) – as needed
- Project website
- Other communication vehicles that you would recommend

Next Steps

- Local groups that should be included in our notification
- Notifying the local property owners
- We will share the PIC invitation with your office when it is available
- Questions?

Thank you!

Stephanie Hodsoll
Stephanie.Hodsoll@HydroOne.com
416-345-6799

CORRESPONDENCE WITH POTENTIALLY AFFECTED AND INTEREST PERSONS AND INTEREST GROUPS

Potentially Affected and Interested Persons and Interest Groups

Date	Method	Stakeholder Contact(s)	Project Team Member(s)	Communication Summary
Nawiinginokiima Forest Management Corporation				
05/17/2017	E-mail	Neil McDonald	April Fang (Hydro One)	HONI issued a Notice of Commencement to notify Nawiinginokiima Forest Management Corporation (NFMC) of a Class EA for the proposed Marathon TS Expansion project.
07/14/2017	E-mail	Neil McDonald	April Fang (Hydro One)	HONI sent the PIC invitation to NFMC.
03/05/2018	E-mail	Neil McDonald	Yu San Ong (Hydro One)	HONI sent the Final Notification letter.
Marathon Cross Country Ski and Snowshoe Club				
05/17/2017	E-mail	Marathon Cross Country Ski and Snowshoe Club	April Fang (Hydro One)	HONI issued a Notice of Commencement to notify the Marathon Cross Country Ski and Snowshoe Club of a Class EA for the proposed Marathon TS Expansion Project.
07/14/2017	E-mail	Marathon Cross Country Ski and Snowshoe Club	April Fang (Hydro One)	HONI sent the PIC invitation to the Marathon Cross Country Ski and Snowshoe Club, and stated that the PIC panels would be available on the HONI website as early as July 25, 2017.
08/31/2017	E-mail	Christine Drake	April Fang, Yu San Ong, Stephanie Hodsoll (Hydro One)	Marathon Cross Country Ski and Snowshoe Club responded to HONI's e-mails, requesting that HONI verify that the proposed expansion is on the other side of their ski trails, and will not impact the trails.
09/05/2017	E-mail	Christine Drake	April Fang, Yu San Ong, Stephanie Hodsoll (Hydro One)	HONI responded to Christine, confirming that the proposed Marathon TS expansion will not impact the current ski trails.
03/05/2018	E-mail	Marathon Cross Country Ski and Snowshoe Club	Yu San Ong (Hydro One)	HONI sent the Final Notification letter.
Marathon Sno-Kickers Snowmobile Club				
05/17/2017	Postal Mail	Craig Colbourne	April Fang (Hydro One)	HONI issued a Notice of Commencement to notify the Marathon Sno-Kickers Snowmobile Club of a Class EA for the proposed Marathon TS Expansion Project.
07/14/2017	Postal Mail	Craig Colbourne	April Fang (Hydro One)	HONI sent the PIC invitation to the Marathon Sno-Kickers Snowmobile Club, and stated that the PIC panels would be available on the HONI website as early as July 25, 2017.
03/05/2018	Postal Mail	Craig Colbourne	Yu San Ong (Hydro One)	HONI sent the Final Notification letter.
Peninsula Golf Course				
05/17/2017	E-mail	Brett Redden	April Fang (Hydro One)	HONI issued a Notice of Commencement to notify Peninsula Golf Course of a Class EA for the proposed Marathon TS Expansion Project.
07/14/2017	E-mail	Brett Redden	April Fang (Hydro One)	HONI sent the PIC invitation to the Peninsula Golf Course and stated that the PIC panels would be available on the HONI website as early as July 25, 2017.
03/05/2018	E-mail	Brett Redden	Yu San Ong (Hydro One)	HONI sent the Final Notification letter.
03/05/2018	E-mail	Brett Redden	Rachel Afonso (Hydro One)	Brett Redden responded, stating that he would review and comment on the draft ESR.
Superior Ridge Runners ATV Club				

Date	Method	Stakeholder Contact(s)	Project Team Member(s)	Communication Summary
05/17/2017	E-mail	Gord Linfield	April Fang (Hydro One)	HONI issued a Notice of Commencement and newspaper notice to notify the Superior Ridge Runners ATV Club of the commencement of a Class EA for the proposed Marathon TS Expansion Project.
07/14/2017	E-mail	Gord Linfield	April Fang (Hydro One)	HONI sent the PIC invitation to the Superior Ridge Runners ATV Club, and stated that the PIC panels would be available on the HONI website as early as July 25, 2017.
03/05/2018	E-mail	Gord Linfield	Yu San Ong (Hydro One)	HONI sent the Final Notification letter.
Ontario Federation of Snowmobile Clubs – District 17 – Thunder Bay				
03/05/2018	Postal Mail	OFSC – District 17	Yu San Ong (Hydro One)	HONI sent the Final Notification letter.
Mining Claim Holder of the Shack Lake Bulk Sampling Project				
03/05/2018	Postal Mail	Mining Claim Holder	Yu San Ong (Hydro One)	HONI sent the Final Notification letter.
03/16/2018	Phone Call	Mining Claim Holder	Yu San Ong (Hydro One)	The mining claim holder called Yu San (HONI environmental planner) to discuss details of his mining claims that have expanded onto the proposed station expansion area due to a new grid system implemented by MNDM. The claim holder also provided comments on the possibility to design and build the new relocated trail in a way that would accommodate his mining business and associated activities (i.e., entrance width and height clearance).
03/19/2018	E-mail	Mining Claim Holder	Yu San Ong (Hydro One)	Yu San sent a follow-up e-mail to the claim holder summarizing the phone call and stated that she will follow up regarding their claims shortly.
05/8/2018	E-mail	Mining Claim Holder	Yu San Ong (Hydro One)	Yu San sent an update to the Mining Claim Holder in regards to the questions raised during the public review period. She stated that Hydro One has have initiated discussions with the MNRF and the MNDM and will continue to investigate how the station expansion impacts the claims and claim areas under the new grid cell claim system implemented by MNDM recently. Yu San added that Hydro One expects to get more clarify from MNDM in the next few weeks. Regarding the new trail entrance off of Peninsula Road, Hydro One understands that the entrance width and the height clearance between the grade and the overhead cables and lines at the new relocated trail entrance will be the same as the existing trail entrance.

CORRESPONDENCE WITH PROPERTY OWNERS

Property Owners

Date	Method	Stakeholder Contact(s)	Project Team Member(s)	Communication Summary
Property Owners				
05/16/2017	Mass Mailout	Property Owner(s)	April Fang (Hydro One)	HONI issued Notice of Commencement letters via e-mail and postal mail to 11 property owners within the vicinity of the Marathon TS Expansion Project. HONI issued a letter, map and newspaper notice in French and English to notify property owners of the project.
07/14/2017	Mass Mailout	Property Owner(s)	April Fang (Hydro One)	HONI issued PIC invitations to 11 property owners within the vicinity of the Marathon TS Expansion Project.
07/19/2017	Phone Call	Property Owner	Stephanie Hodsoll (Hydro One)	A property owner phoned HONI, requesting that their contact information be updated.
07/19/2017	E-mail	Kimberly McNaughton (Ministry of Natural Resources and Forestry (Nipigon District))	April Fang (Hydro One)	HONI forwarded the e-mail to MNRF to update the contact information, as the property owner was on the MNRF internal FIPPA list.
03/05/2018	Mass Mailout	Property Owner(s)	Yu San Ong (Hydro One)	HONI sent the Final Notification letter.

APPENDIX A-4:

PUBLIC INFORMATION CENTRE SUMMARY

Welcome

to our Public Information Centre for the proposed expansion of Marathon Transformer Station

Partners in Powerful Communities

Purpose of the Public Information Centre

Thank you for coming tonight. Please take the opportunity to meet our project team and learn more about:

- The proposed project in your community
- The planning and approvals process
- Next steps in project planning, and opportunities for your participation

We're here to listen to your comments or concerns, obtain your feedback and answer your questions

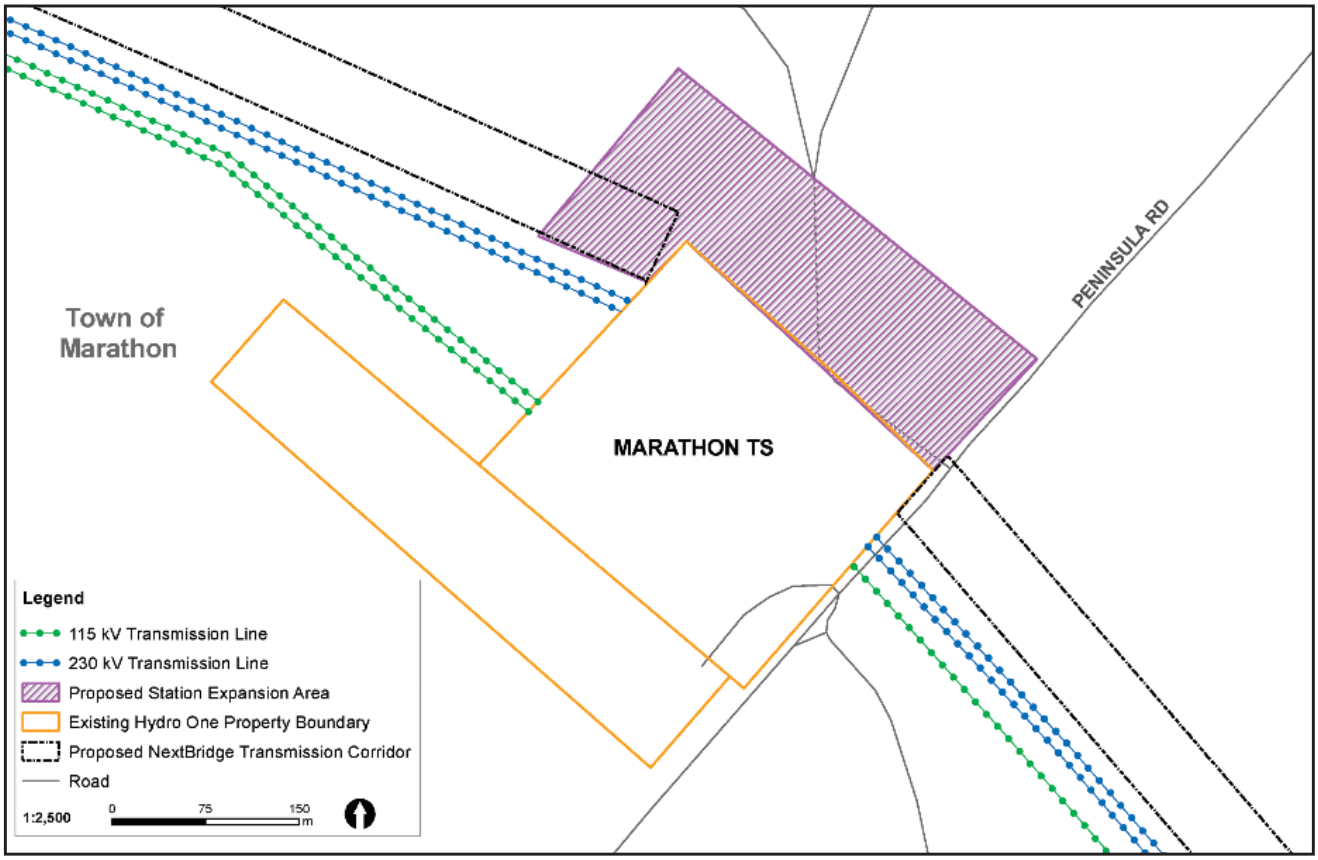
The proposed project

- Hydro One's existing Marathon Transformer Station (TS) must be expanded in order to connect NextBridge Infrastructure's proposed new East-West Tie transmission line to the station

- The following station work would be required:
  - Installation of new electrical equipment
  - Connection of NextBridge's proposed new line to the station and reconfiguration of existing line connections
  - Installation of a new relay building, which would house electronic devices critical for safety, reliability and security of the power system

- To accommodate this work, the station would be expanded by approximately 5 hectares/12 acres onto adjacent Crown land

Proposed area for station expansion



Partners in Powerful Communities

Project approvals

Ontario *Environmental Assessment (EA) Act*

The proposed station expansion is subject to the Class EA for Minor Transmission Facilities (Hydro One, 2016), in accordance with the Ontario *EA Act*

As the proposed area for expansion would be acquired from the Ministry of Natural Resources and Forestry (MNRF), the project will also be carried out according to the requirements of the Class EA for Resource Stewardship and Facility Development Projects (MNR, 2002)

Ontario Energy Board (OEB) Act

"Leave to Construct" approval is required under Section 92 of the *OEB Act* for NextBridge's proposed new East-West Tie transmission line and all associated work, including the proposed station expansion at Marathon TS

Class Environmental Assessment

- The Class EA is a streamlined planning process that has proven effective in ensuring that minor transmission projects that have a predictable range of effects have feasible environmental mitigation and/or protection measures in place
- As part of the Class EA process, a draft Environmental Study Report (ESR) will be available for a public review and comment period once the assessment is complete
- If no concerns are expressed during the public review and comment period, a final ESR will be filed with the Ontario Ministry of the Environment and Climate Change (MOECC), and the project will proceed
- If concerns are expressed during the review and comment period, Hydro One will make best efforts to resolve and incorporate them into the proposed project
- If Hydro One cannot satisfy all of the concerns raised during the review period, a written request (Part II Order) asking for a higher level of assessment (Individual EA) can be submitted to the MOECC

Environmental planning process

The potential effects of the project will be identified during project planning and design, as part of the Class EA process, including potential effects related to:

- Business and residential property owners
- Planned land uses and existing infrastructure
- Natural environment resources (terrestrial and aquatic)
- Archaeological (heritage) resources
- Forestry and mineral resources
- Recreational resources and landscape appearance

Environmental surveys

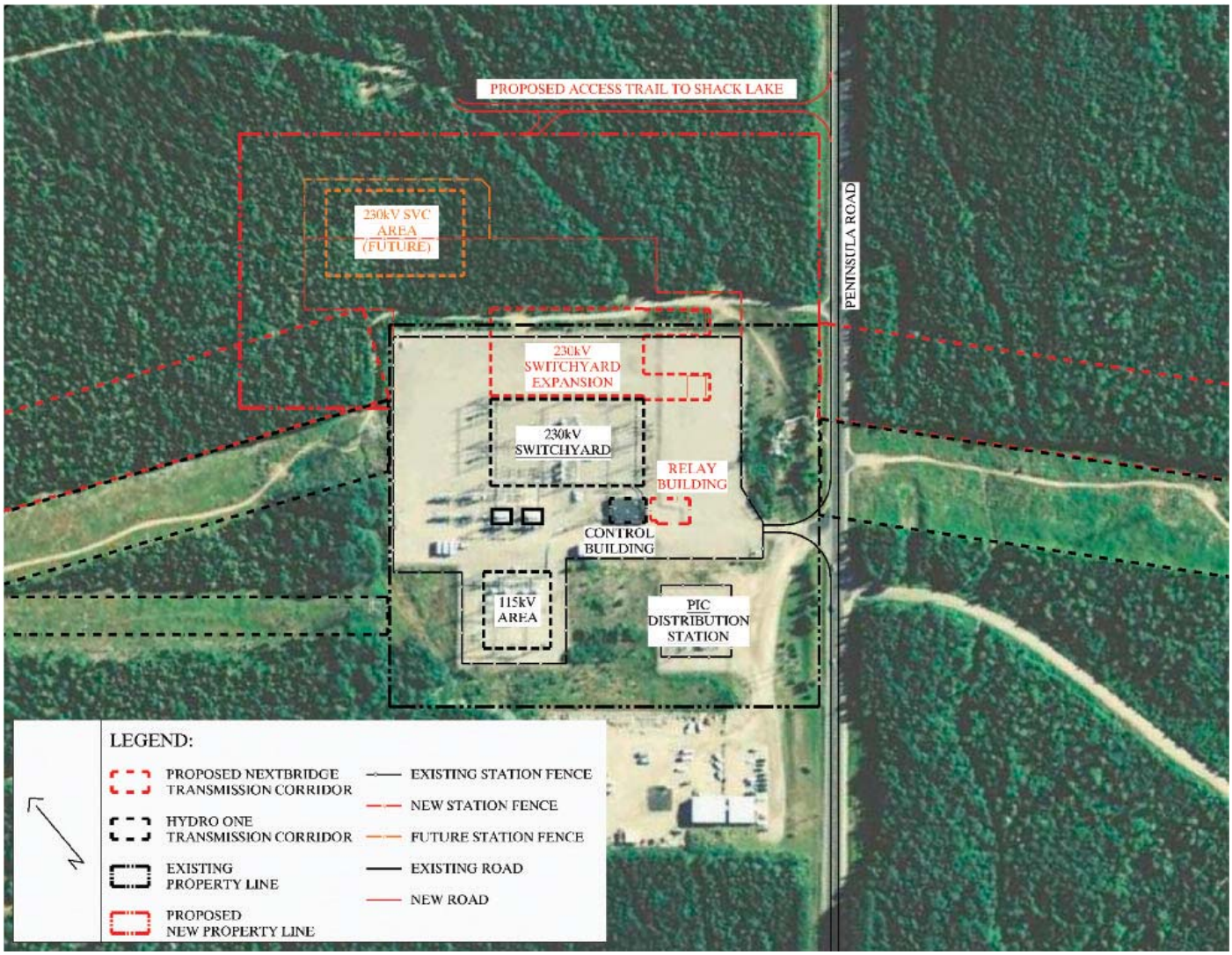
- Environmental surveys were conducted between July 7 – 9, 2017
- Breeding bird, crepuscular and amphibian surveys completed
- No Species at Risk (SAR) were observed or heard, including Woodland Caribou
- Aquatic resources are not anticipated to be impacted by this project

Environmental mitigation measures

Measures to reduce, prevent or mitigate potentially adverse environmental effects will include:

- Controlling noise, mud, dust and other nuisance effects during construction
- Conducting nesting bird surveys prior to vegetation removal
- Implementation of Best Management Practices for Woodland Caribou (MNRF, 2013) as appropriate
- Vehicle inspections and washing of soil-moving equipment to reduce transference of invasive species

Proposed station layout

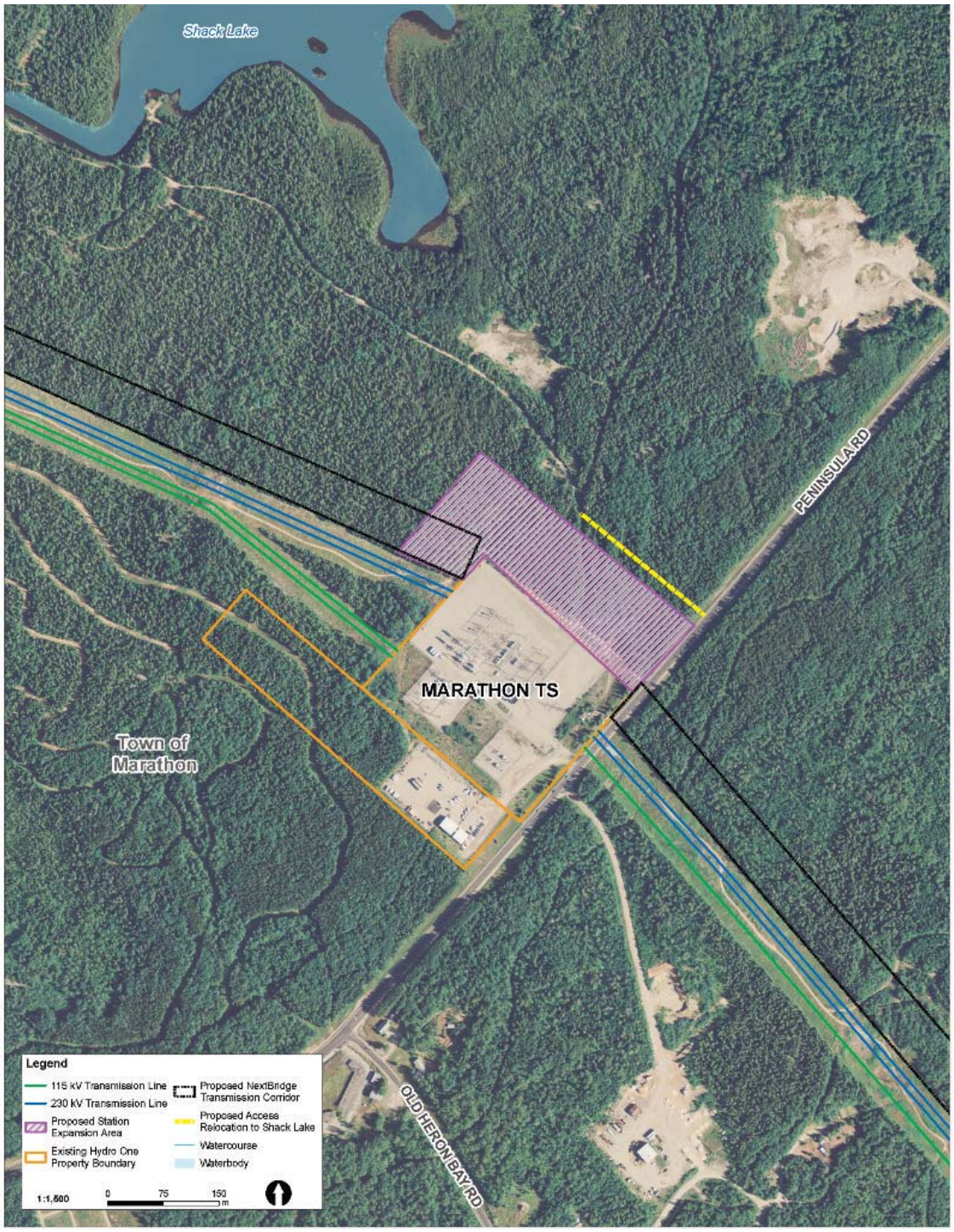


Partners in Powerful Communities

Access to Shack Lake

- The current access trail to Shack Lake lies within the proposed station expansion area and would require relocation to accommodate the proposed project
- Relocation of the trail would be completed before Hydro One starts construction within the proposed expansion area
- Hydro One will ensure that the existing access trail is available until its relocation has been completed

Access to Shack Lake: proposed new trail location



Timeline

PUBLIC AND STAKEHOLDER CONSULTATION

Notification to First Nations and Métis communities	March 2017
Notification to the Town of Marathon	March 2017
Class Environmental Assessment initiated	May 2017
Public Information Centre	July 2017
Notice of Completion & draft Environmental Study Report available for a public review & comment period	Anticipated fall 2017
Final ESR filed with the MOECC	Anticipated early 2018
Decision from the OEB	Anticipated spring 2018
Shack Lake access trail rebuilt in its new location	Anticipated Spring 2018
Start of construction, contingent on the outcome of the Class EA process and approval from the OEB	Anticipated mid-2018
Project in-service	Anticipated December 2020

** Revised as of July 2017*

Your input is important to us

Thank you for joining us at this Public Information Centre.

Please share your input and feedback with us,
and complete a comment form before you go.

To share concerns, request information or to be added
to the project contact list, please call or email:

Stephanie Hodsoll
t: 1-877-345-6799
e: Community.Relations@HydroOne.com
www.HydroOne.com/Projects/MarathonTS

Partners in Powerful Communities

Proposed Marathon Transformer Station Expansion Project

July 25, 2017 – Marathon Centre Mall

SIGN-IN SHEET *(Please Print Clearly)*

Name	Address	Email	Telephone

The personal contact information you provide to hydro one will be used for the sole purpose of communicating information and updates about this project. It will not be shared with other organizations.

COMMENT FORM
Proposed Marathon Transformer Station Expansion Project

Public Information Centre
July 25, 2017, Marathon Centre Mall

Thank you for attending Hydro One's Public Information Centre (PIC)! Please take a moment to answer a few questions, or take this comment form home and send it to us at your convenience. Your input and comments are important to us and helpful in planning this project.

1. Did you find tonight's PIC helpful in understanding the proposed project in your community?
   Yes / No
2. Did you have an adequate opportunity to express your views/ask questions to Hydro One's project team?
   Yes / No
3. How did you hear about tonight's PIC?
   ___ radio ad __ newspaper ad __ notice delivered to house __ Municipal Matters __ other

4. Do you have any comments, questions, or concerns to share regarding tonight's PIC and/or this project? (Additional space on reverse)

_____

_____

_____

_____

_____

Please provide your contact information so that we can follow-up with you on your comments or questions, and add you to our project contact list for future communications.

Name: _____

Mailing Address & Postal Code: _____

Tel: _____ Email: _____

Please leave your comment form in the comment box at this meeting or send it in by August 25, 2017 to:

Stephanie Hodsoll, Community Relations Officer, Hydro One
483 Bay Street, 6th Floor, South Tower, Toronto, ON M5G 2P5
Tel. 1-877-345-6799; Fax: 416-345-6984; Email: Community.Relations@HydroOne.com

Please be advised that any of your personal information contained on this comment form will become part of the public record files for this project, and may be released, if requested, to any person, unless you state on this form that you do not consent to your personal information becoming part of the public record files and disclosed to any person upon request.

hydro one

COMMENT FORM

Proposed Marathon Transformer Station Expansion Project

Public Information Centre
July 25, 2017, Marathon Centre Mall

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   ___ radio ad __ newspaper ad __ notice delivered to house __ Municipal Matters X other
4. Do you have any comments, questions, or concerns to share regarding tonight's PIC and/or this project? (Additional space on reverse)

(1) NOTIFY O.F.S.C. OF CHANGES AS THE "D" TRAIL WILL BE "RE-ROUTED".

(2) LEAVE ATV & SNOW MACHINE ACCESS TO POWERLINE R.O.W. THE BIG ROCK UNDER POWERLINE IS A FAVORITE DESTINATION WITH GREAT VIEW OF TOWN & SUPERIOR

Please provide your contact information so that we can follow-up with you on your comments or questions, and add you to our project contact list for future communications.

Name: [redacted]

Mailing Address & Postal Code: [redacted]

Tel: [redacted] Email: [redacted]

Please leave your comment form in the comment box at this meeting or send it in by August 25, 2017 to:

Stephanie Hodsoll, Community Relations Officer, Hydro One
483 Bay Street, 6th Floor, South Tower, Toronto, ON M5G 2P5
Tel. 1-877-345-6799; Fax: 416-345-6984; Email: Community.Relations@HydroOne.com

COMMENT FORM
Proposed Marathon Transformer Station Expansion Project

Public Information Centre
July 25, 2017, Marathon Centre Mall

Thank you for attending Hydro One's Public Information Centre (PIC)! Please take a moment to answer a few questions, or take this comment form home and send it to us at your convenience. Your input and comments are important to us and helpful in planning this project.

1. Did you find tonight's PIC helpful in understanding the proposed project in your community?
   (Yes) / No
2. Did you have an adequate opportunity to express your views/ask questions to Hydro One's project team?
   (Yes) / No
3. How did you hear about tonight's PIC?
   ___ radio ad __ newspaper ad __ notice delivered to house X Municipal Matters __ other

4. Do you have any comments, questions, or concerns to share regarding tonight's PIC and/or this project? (Additional space on reverse)

Thanks for having this info session - glad access road to Shark Lake will be done before starting the project - appreciate this! Would request that a connecting trail be put in to accomodate ATV's & skidoos as this connection will not be there - or close enough to go across.

Please provide your contact information so that we can follow-up with you on your comments or questions, and add you to our project contact list for future communications.

Name [redacted]

Mailing Address & Postal Code: [redacted]

Tel: [redacted] Email: [redacted]

Please leave your comment form in the comment box at this meeting or send it in by August 25, 2017 to:

Stephanie Hodsoll, Community Relations Officer, Hydro One
483 Bay Street, 6th Floor, South Tower, Toronto, ON M5G 2P5
Tel. 1-877-345-6799; Fax: 416-345-6984; Email: Community.Relations@HydroOne.com

Memo

Date:	November 10, 2017
To:	Yu San Ong (Hydro One) April Fang (Hydro One) Stephanie Hodsoll (Hydro One)
From:	Aniqa Shams (Amec Foster Wheeler)
CC:	Bradley Dufour (Amec Foster Wheeler)
Ref:	TC170411
Re:	**Marathon TS Expansion – Public Information Centre Summary**

1.0 INTRODUCTION

Hydro One Networks Inc. (Hydro One) has initiated a Class Environmental Assessment (EA) to expand its existing Marathon Transformer Station (TS) in the Town of Marathon. This proposed station expansion is required in order to accommodate and connect to the new East-West Tie transmission line to the station. The Class EA process provides opportunities for consultation, and on July 25, 2017, Hydro One hosted a Public Information Centre (PIC) for the Marathon TS Expansion project. This memorandum summarizes the PIC, comments and concerns raised by the public and Hydro One's responses to date.

Invitations to the PIC were sent via e-mail and letter mail to federal and provincial agencies, the MPP, the Mayor and CAO, municipal departments, the local elected official, area residents and landowners, First Nations and Métis communities, and other stakeholders. In addition, an invitation to the PIC was published in the Marathon Mercury Newspaper on July 18, 2017, and a radio advertisement ran three times a day for the week leading up to the PIC on the local station, CFNO.

The purpose of the PIC was to provide information on the proposed project, its need, and the Class EA process (including consultation activities and field studies), as well as to outline next steps in the planning and approvals process and to solicit input from the public about the proposed project and proposed new location for the Shack Lake access trail. A set of 14 display panels were set up at the perimeter of the room to allow attendees to browse and ask questions about the project to the Hydro One project team.

Table maps showing the proposed station layout and the study area for field surveys were also made available for attendees to review and discuss areas of interest with the project team.

1.1 July 25, 2017 – Public Information Centre

The PIC for the proposed Marathon TS expansion project was held on Tuesday, July 25, 2017. The event was held from 4:00 pm to 8:00 pm at the Marathon Centre Mall at 2 Hemlo Drive in the Town of Marathon, Ontario. The mall is centrally located in the Town of Marathon and is approximately 2.5 km northeast of the project study area.

1.1.1 Participants

Ten individuals attended the PIC including local residents, a representative from the Marathon Mercury newspaper, recreational trail users and a representative from the Pic Mobert First Nation. Participants also included walk-in mall users. Project team representatives including the Hydro One Project Manager, Community Relations Officer and Environmental Planners were on hand to answer questions, have discussions with the attendees and discuss participants' concerns and input. One Amec Foster Wheeler staff member was also in attendance to provide support.

1.1.2 Feedback, Comments and Questions

The overall tone of the PIC was neutral or positive as the attendees understood the need and benefit of the project. There were concerns raised about the proposed East-West Tie project, which were not directly applicable to Hydro One's proposed project. For example, one attendee noted the negative impact on mining that the proposed East-West Tie project could have. Most questions received were general project-related questions such as purpose of the project, construction timelines and location of the proposed new access trail to Shack Lake. The representative from the Pic Mobert First Nation inquired about the field investigations, the planning process and plans for an environmental monitor during the construction of the project. A recreational trail user informed the project team that in addition to snow machines, the trail is also used for all-terrain vehicles (ATVs). The representative from the Marathon Mercury had general project-related questions for the team.

One comment sheet was submitted at the PIC. The commenter expressed appreciation that the new access trail to Shack Lake would be in place prior to the start of project construction, and that access to Shack Lake would be available throughout construction. The individual suggested that a connecting trail be established on the south side of Peninsula Road to create a continuous trail for user safety. This comment and other discussions from the PIC along with Hydro One's responses are summarized in Table 1.

One comment form was submitted post-PIC via email on August 2, 2017. The commenter requested that the Ontario Federation of Snowmobile Clubs (O.F.S.C.) be notified of changes to the Shack Lake access trail. The commenter also suggested that Hydro One maintain recreational user's access to the transmission corridor.

1.2 Responses from Hydro One

To date, two comment forms on the project have been received.

Hydro One has addressed the feedback received from the PIC within this Draft ESR

2.0 CONCLUSION

If you require further information regarding the above, please contact Bradley Dufour, Consultant Project Manager at (519) 650-7109. Thank you for the opportunity to be of service to Hydro One.

Sincerely,
Amec Foster Wheeler Environment & Infrastructure
a Division of Amec Foster Wheeler Americas Limited

Prepared by:

Aniqa Shams, B.E.S.
Junior Environmental Planner

Reviewed by:

Bradley Dufour
Project Manager

Table 1: Summary of Issues and Concerns Raised during the Public Information Centre

Theme	Issue/Concern	Response from Hydro One
Class EA Process		
Environmental Assessment Process	A member of the public asked when the draft Environmental Study Report (ESR) will be made available for public review and how long the comment period will be.	It is anticipated that the draft ESR will be made available a 30-day public review during the fall of 2017.
Public Information Centres (PICs)	A member of the public inquired whether a second PIC is planned for this project.	A second PIC is not currently planned for this project.
Technical Design		
Project Need	Members of the public inquired about the need and purpose of the project.	The existing Marathon Transformer Station (TS) must be expanded in order to connect the proposed East-West Tie transmission line to the station.
General Project Questions	A member of the public inquired who will be responsible for operating the TS.	Hydro One will be responsible for the operation of the TS.
	A member of the public inquired how many transformer stations are proposed.	The project involves the expansion of only Marathon TS.
Shack Lake Access Trail	Questions as to where the trail will be constructed (inside or outside the fence line)	Hydro One plans to construct the new trail outside of the fence line of the TS.
	Concerns expressed regarding safety implications for recreational users as the new trail location breaks the existing connectivity of the trail system	Hydro One noted this concern.
Proposed Expansion Location	A member of the public inquired how the proposed area for the expansion was chosen.	The proposed area for the expansion was chosen through assessment by Hydro One engineers, based on existing station infrastructure and proposed East-West Tie transmission corridor.
	A member of the public inquired as to there are any wells located near or within the expansion area.	Further information regarding wells will be included in the Environmental Study Report.
East-West Tie EA	A member of the public expressed concern for land use and ownership as they had a mining claim that was not renewed with the East-West Tie project. Concerned about economic implications for the East-West Tie project as it affects areas with mining potential.	The member of the public understood that this is a comment that should be addressed by proposed East-West Tie project team.

Theme	Issue/Concern	Response from Hydro One
Natural Environment		
Natural Environment	A member of the public inquired about whether there are any wetlands in the area.	Wetlands are present outside of the immediate project area and are not anticipated to be impacted by the planned project works.
Construction		
Schedule and Timing	There were questions regarding when the new access trail to Shack Lake would be built.	The Shack Lake access trail will be in place prior to construction of the expansion and access to the lake will be available throughout project construction.
Monitoring	A member of the public asked about whether there would be an environmental monitor during construction.	As part of the Class EA, Hydro One would ensure that an environmental monitor would be assigned during construction. It is anticipated that a Hydro One environmental field planner will fill this role.

APPENDIX A-5:

COMMENTS RECEIVED DURING THE DRAFT ESR REVIEW PERIOD

MINING CLAIM HOLDER OF THE SHACK LAKE BULK SAMPLING PROJECT

From: ONG Yu-San
To: [redacted]
Cc: AFONSO Rachel; HODSOLL Stephanie; BRAKEL Arnold
Subject: RE: Marathon TS Expansion draft ESR review comment - mining claims and new relocated trail
Date: Tuesday, May 08, 2018 1:06:49 PM

Dear [redacted]

Further to my email sent on March 19, 2018 with respect to your three mining claims: [redacted], I would like to let you know that we have initiated discussions with the MNRF and the MNDM and will continue to investigate how our station expansion impacts your claims and claim areas under the new grid cell claim system implemented by MNDM recently. We expect that we will get more clarify from MNDM in the next few weeks.

Regarding the new trail entrance off of Peninsula Road, our understanding is that the entrance width and the height clearance between the grade and the overhead cables and lines at the new relocated trail entrance will be the same as the existing trail entrance.

Please feel free to contact me if you have further questions or comments.

Thanks,

Yu San Ong
Environmental Planner, Environmental Programs & Approvals

Hydro One Networks Inc.
483 Bay Street | North Tower 12th Floor
Toronto, ON | M5G 2P5

Tel: 416.345.5031
Cell: 416.779.7947
Email: yusan.ong@HydroOne.com

From: ONG Yu-San
Sent: Monday, March 19, 2018 4:06 PM
To: [redacted]
Subject: RE: Marathon TS Expansion draft ESR review comment - mining claims and new relocated trail

Hello [redacted],

Please see the website for the information on all the sessions: https://www.hydroone.com/about/corporate-information/major-projects/lake-superior-link

The Nipigon session is today:

Nipigon
5:00 – 7:30 p.m.

Royal Canadian Legion Branch 32
102 5th Street

Thanks,
Yu San

From: [redacted]
Sent: Monday, March 19, 2018 4:03 PM
To: ONG Yu-San
Subject: Re: Marathon TS Expansion draft ESR review comment - mining claims and new relocated trail

Thank You for the reply.

Would you know if a session would be held in Nipigon?

Thanks

[redacted]

---------- Original Message ----------
From: YuSan.Ong@HydroOne.com
Date: March 19, 2018 at 1:57 PM

Hello [redacted],

Thank you for your call on Friday March 16 in response to the draft Environmental Study Report 30-day public review period for the proposed Marathon TS Expansion Project.

Thanks for bringing to my attention of the newly-implemented MNDM grid system which results in a potential project effect on your three mining claims: [redacted]. You have also provided comments on the possibility to design and build the new relocated trail in a way that would accommodate your mining business and associated activities (ie, entrance width and height clearance). I have initiated discussions within our project team and will get back to you regarding the next steps with regards to those two matters.

In case you were not aware, Hydro One will be hosting a series of community engagement sessions for the Lake Superior Link (LSL) Project this week, (to clarify LSL is another Hydro One project and has a different scope from the proposed Marathon Transformer Station expansion project). Our LSL project team will be in the Town of Marathon on Wednesday March 21 from 1-8 pm at the Marathon Centre Mall. I encourage you to attend the session to speak with the project team directly regarding your mining claims in the Marathon area. Please see the project website here for more information on the LSL project: https://www.hydroone.com/about/corporate-information/major-projects/lake-superior-link

If you have any further questions or have further comments for the Marathon TS Expansion Project, please feel free to contact me.

Thanks,

Yu San Ong
Environmental Planner, Environmental Programs & Approvals

Hydro One Networks Inc.
483 Bay Street | North Tower 12th Floor
Toronto, ON | M5G 2P5

Tel: 416.345.5031
Cell: 416.779.7947
Email: yusan.ong@HydroOne.com

MINISTRY OF THE ENVIRONMENT AND CLIMATE CHANGE

Ministry of the Environment and Climate Change
Northern Region
331-435 James St S
Thunder Bay ON P7E 6S7
Fax: (807)475-1754
Tel: (807)475-1717

Ministère de l'Environnement et de l'Action en matière de changement climatique
Direction régionale du Nord
Bureau du district de Thunder Bay
331-435 rue James S
Thunder Bay ON P7E 6S7
Télécopieur: (807)475-1754
Tél:(807)475-1717

Ontario

April 06, 2018

M E M O R A N D U M

TO: Yu San Ong
Environmental Planner
Hydro One Networks Inc.

FROM: Mira Majerovich
Environmental Assessment Coordinator/Environmental Planner (A)
MOECC Northern Region - Thunder Bay

Dear Yu San Ong,

RE: Hydro One Networks Inc. Marathon Transformer Station Draft Environmental Screening Report

The Ministry of the Environment and Climate Change, Northern Region, has reviewed the Hydro One Marathon Transformer Station Draft Environmental Screening Report (ESR), dated March 09, 2018.

MOECC is responsible for protecting clean and safe air, land and water to ensure healthy communities, ecological protection and sustainable development for present and future generations of Ontarians. We do this through the implementation of applicable legislation including the *Environmental Protection Act* and the *Ontario Water Resources Act,* as well as related policies and procedures.

The existing Hydro One Marathon TS is located at 217 Peninsula Road in the Town of Marathon. The Marathon TS expansion project is designed to support the proposed NextBridge Infrastructure LP (NextBridge) East-West Tie Transmission Line Project. NextBridge plans to construct, own and maintain the East-West Tie Transmission Line, an approximately 450 km long double-circuit 230-kilovolt transmission line connecting the Lakehead Transformer Station in the Municipality of Shuniah to the Wawa Transformer Station located east of the Municipality of Wawa. The East-West Tie Transmission Line is anticipated to be constructed over an approximate 25 month period and to operate indefinitely.

The proposed Marathon TS project would expand the current existing footprint by approximately 5 ha and involves the reconfiguration of 230 kilovolt (kV) buses and diameters, installation of new 230 kV circuit breakers and disconnect switches and

connection of the circuits and installation of two new 230 kV shunt reactors. The existing 230 kV circuits inside Marathon TS would be re-terminated and the last structure of the new East-West Tie 230 kV circuits (outside of Marathon TS) would be connected to structures inside the station. A new relay building would also be installed.

The scope of our review discusses requirements for an assessment of baseline conditions and potential impacts from the proposed undertaking, as part of the Class Environmental Assessment for Requirements for Electricity Projects, and the requirements for MOECC approvals.

We have reviewed the following documents:

- Hydro One Marathon Transformer Station Draft Environmental Screening Report (ESR), dated March 09, 2018
- Appendices

MOECC's review staff have the following to offer:

Groundwater Quantity and Quality:
Groundwater staff have reviewed the report and have no concerns related to the groundwater aspects of the proposed undertaking.

Surface Water Quantity and Quality:
The proposed TS expansion will require the clearing and development of approximately 5 hectares of forested land immediately adjacent to the north-east of the existing TS. The only surface water feature within the study area is a portion of Shack Lake. However, the proposed expansion area construction/site clearing footprint is approximately 300 metres from the shoreline of Shack Lake.

The potential environmental impacts to surface water quantity and quality from TS construction and operation are generally limited to access road construction, site clearing and stormwater runoff. However, construction and operational impacts to surface water quantity and quality should be mitigated by utilizing standard protocols and best management practices (BMPs) as indicated in the draft ESR. The potential long-term operational impacts are related primarily to stormwater contamination and from increased erosion and sedimentation due to stormwater runoff. The ESR describes proposed site design and mitigation measures to capture any contaminated stormwater (ex. berms, ditching and oil-water separators). The distance to the nearest waterbody (300m) should allow for sufficient infiltration and/or attenuation of any site stormwater runoff. Spill management planning and mitigation measures during construction and operation were also addressed in the draft ESR.

Other:
Potential short and long term environmental effects resulting from the proposed project dealing with land use compatibility, waste generation, vibration, air quality, and noise impacts in the draft ESR have been identified and avoidance and/or mitigation measures have been proposed accordingly. The potential environmental impacts from noise during construction and operation are addressed in the draft ESR. No land use compatibility issues have been identified within the study area. MOECC notes that the draft ESR includes little information on the landscape plan for the site and ongoing landscape maintenance practices and methods. Should residential property owners be affected by any herbicides being used in the landscape maintenance (there could

potentially be leachate of herbicides to wells on adjacent properties) MOECC would like additional information on how this potential concern would be addressed.

The draft ESR also refers to Hydro One's construction standards and guidelines and that an Environmental Specialist will monitor activities to ensure conformance with these requirements. MOECC is satisfied with this approach.

The environmental assessment process should be open and transparent, enabling all interested persons to contribute to and follow the project through various stages of project planning and decision-making until final project details are known. MOECC is satisfied with the public consultation program that has taken place thus far, as specified in the draft ESR.

This concludes the MOECC's comments on the draft ESR at this time. If you have any questions regarding the above comments, please do not hesitate to contact me.

Regards,

Mira Majerovich
Environmental Resource Planner/EA Coordinator (A)
MOECC

c. Bryce Voca, APEP Supervisor, MOECC

Hydro One Networks Inc.
483 Bay Street
North Tower, 12th Floor
Toronto, Ontario, M5G 2P5
www.HydroOne.com

Tel: 416-345-5031
Email: yusan.ong@HydroOne.com

Yu San Ong
Environmental Planner, Environmental Programs and Approvals

April 24, 2018

Mira Majerovich
Environmental Assessment Coordinator/Environmental Planner (A)
Ministry of Environment and Climate Change
Northern Region - Thunder Bay
12th Flr, 199 Larch St
Sudbury, ON P3E 5P9

RE: Proposed Marathon Transformer Station Expansion Project - response to MOECC comments on the draft Environmental Study Report

Dear Ms. Majerovich:

Thank you for submitting your review comments on the draft Environmental Study Report (ESR) completed for the proposed Marathon Transformer Station (TS) Expansion Project. We appreciate your thorough review of the draft ESR and your comments on the various aspects of the report as well as the Class EA process that was undertaken for the proposed project.

You noted in your letter dated April 6, 2018 that,

> *the draft ESR includes little information on the landscape plan for the site and ongoing landscape maintenance practices and methods. Should residential property owners be affected by any herbicides being used in the landscape maintenance (there could potentially be leachate of herbicides to wells on adjacent properties) MOECC would like additional information on how this potential concern would be addressed.*

We would like to note that no landscape plan will be implemented as part of the proposed project, as indicated in section 7.8 Visual and Aesthetic Resources,

with the new switchyard, SVC and expansion, the views of the site and property would change very little, due to the preservation of the existing trees along Peninsula Road to the new SVC station. Views into Hydro One's property would remain similar to current views.

With regards to your comment on herbicides, Hydro One does not use herbicides for landscaping at Marathon TS and only uses a registered herbicide within the station fence to keep the station yard secure and safe for our workers. Vegetation must be controlled so that it does not grow into our equipment or the station fence. A glyphosate-based herbicide such as Roundup is used as a spot treatment semi-annually. It is our herbicide of choice for the treatment of station yards because it has a short half-life, breaks down in the soil, and does not affect groundwater. Hydro One has a policy to maintain a minimum of 15 meter (m) herbicide-free buffer around all drinking water wells. The closest well is far beyond 15 m at approximately 400 m, and therefore the herbicide treatment of the station will not affect wells in the area.

We trust that our response addresses your comment related to herbicide, please let me know if you have further comments or questions regarding this project, please also feel free to contact me.

Sincerely,

Yu San Ong, Environmental Planner
Environmental Programs and Approvals

cc:
Patricia Staite, Manager – Environmental Programs and Approvals, Hydro One

OJIBWAYS OF GARDEN RIVER FIRST NATION

Proposed expansion of Marathon Transformer Station

Presentation for Garden River First Nation

Yu San Ong, Environmental Planner
Arnold Brakel, Project Manager
April 3, 2018

Partners in Powerful Communities

Agenda

- Hydro One's proposed project
- Project planning and approvals process
- Environmental surveys completed
- Environmental mitigation measures
- Relocation of trail to Shack Lake
- Timeline
- Q&A

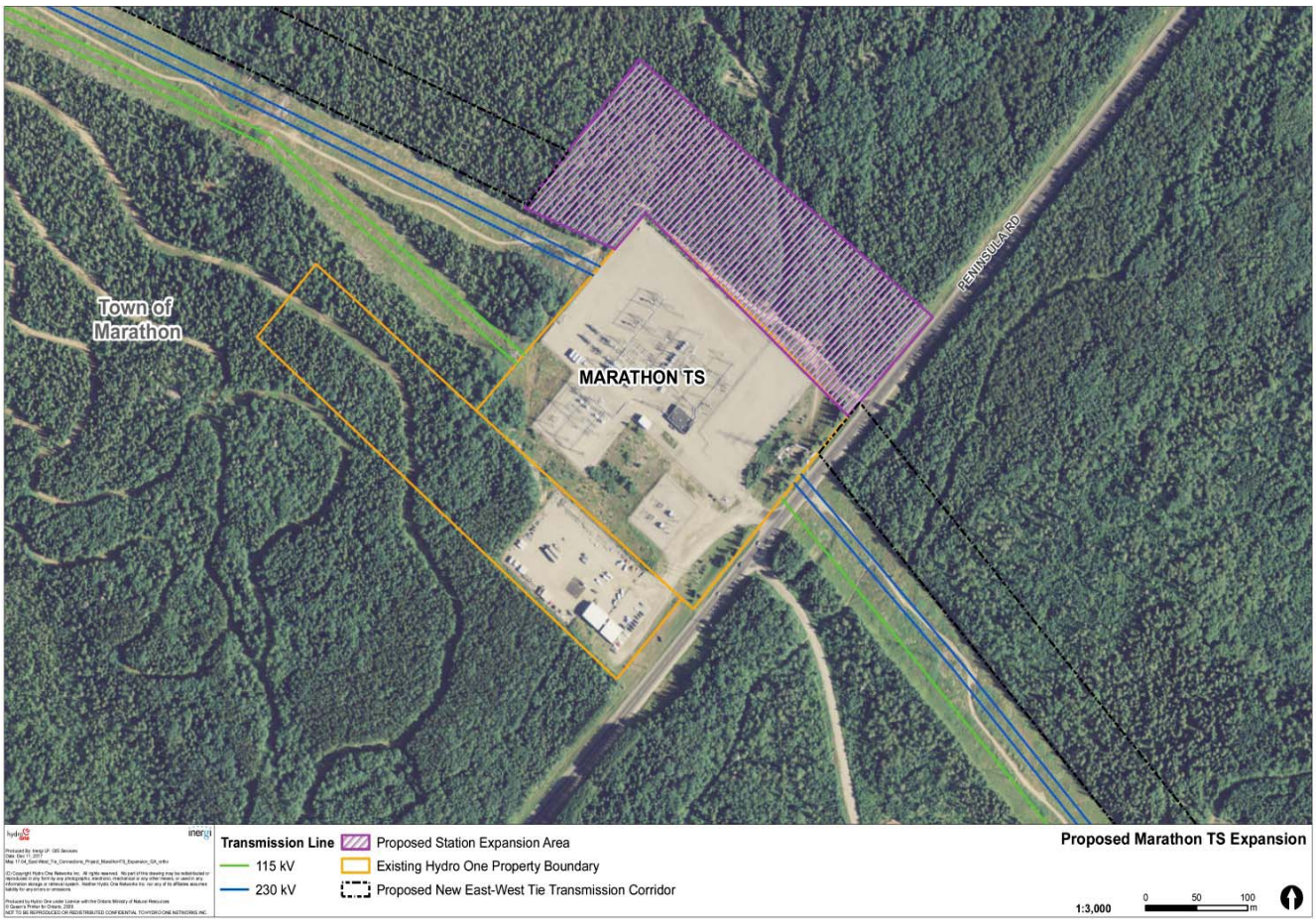
The proposed Project

- Hydro One's existing Marathon Transformer Station (TS) must be expanded in order to connect the proposed new East-West Tie transmission line to the station

- The following station work would be required:
  - Installation of new electrical equipment
  - Connection of the proposed new line to the station and reconfiguration of existing line connections
  - Installation of a new relay building, which would house electronic devices critical for safety, reliability and security of the power system

- To accommodate this work, the station will be expanded by approximately 5 hectares/12 acres onto adjacent Crown land

Proposed area for station expansion



Partners in Powerful Communities

Project approvals

Ontario *Environmental Assessment (EA) Act*

The proposed station expansion is subject to the Class EA for Minor Transmission Facilities (Hydro One, 2016), in accordance with the Ontario *EA Act*

As the proposed area for expansion would be acquired from the Ministry of Natural Resources and Forestry (MNRF), the project will also be carried out according to the requirements of the Class EA for Resource Stewardship and Facility Development Projects (MNR, 2002)

Ontario Energy Board (OEB) Act

"Leave to Construct" approval is required under Section 92 of the *OEB Act* for the proposed new East-West Tie transmission line and all associated work, including the proposed station expansion at Marathon TS

Class Environmental Assessment

- The Class EA is a streamlined planning process that has proven effective in ensuring that minor transmission projects that have a predictable range of effects have feasible environmental mitigation and/or protection measures in place

- As part of the Class EA process, a draft Environmental Study Report (ESR) is currently available for a 30-day public review and comment period

- If no concerns are expressed during the review and comment period, a final ESR will be filed with the Ontario Ministry of the Environment and Climate Change (MOECC), and the project will proceed

- If concerns are expressed during the review and comment period, Hydro One will make best efforts to resolve and incorporate them into the proposed project

- If Hydro One cannot satisfy all of the concerns raised during the review period, a written request (Part II Order) asking for a higher level of assessment (Individual EA) can be submitted to the MOECC

Environmental planning process

The potential effects of the project would be identified during project planning and design, as part of the Class EA process, including potential effects related to:

- Business and residential property owners
- Planned land uses and existing infrastructure
- Natural environment resources (terrestrial and aquatic)
- Archaeological (heritage) resources
- Forestry and mineral resources
- Recreational resources and landscape appearance

Environmental surveys

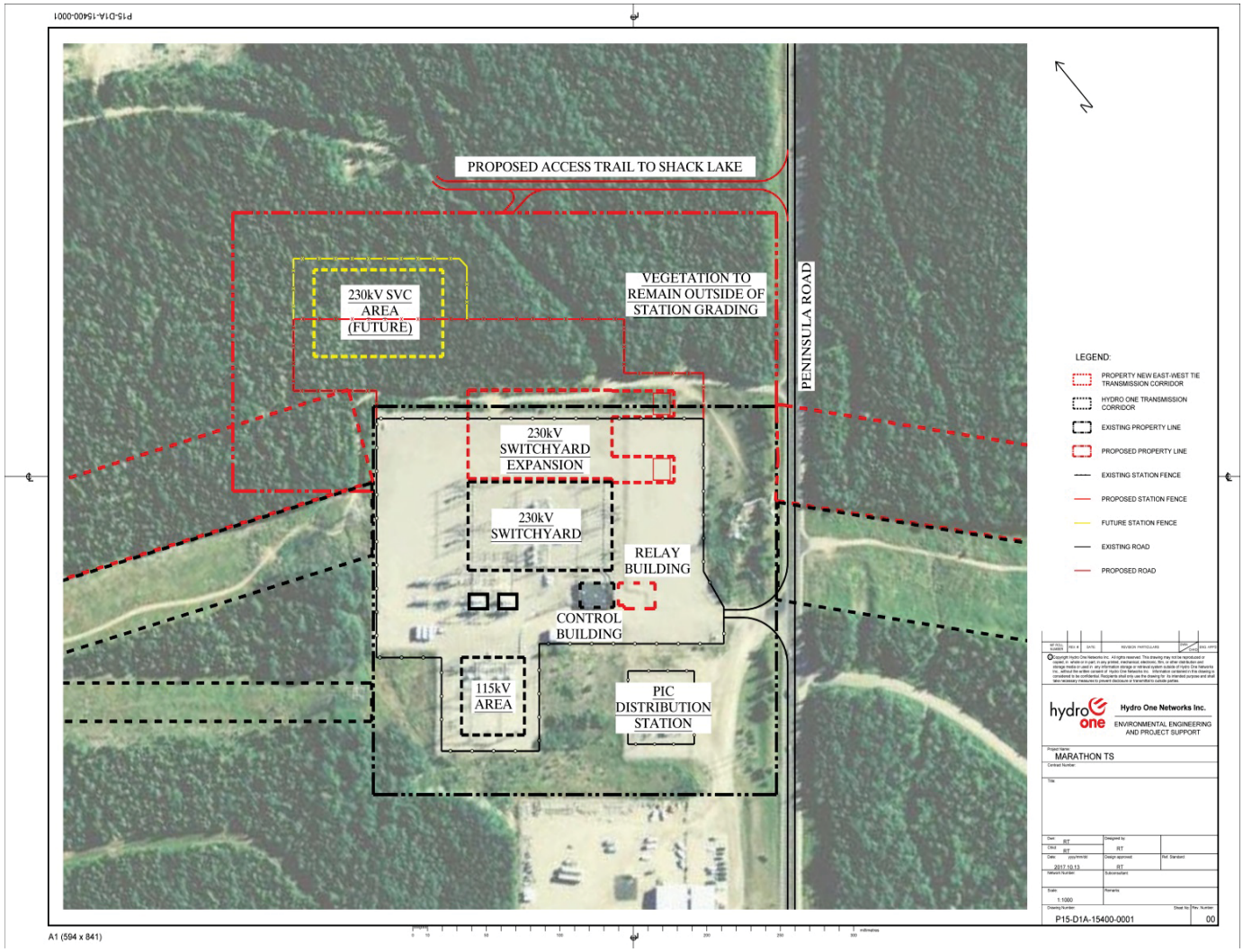
- Environmental surveys were conducted in July 7-9, 2017
- Breeding bird, crepuscular and amphibian surveys were completed
- No Species at Risk (SAR) were observed or heard, including the Woodland Caribou
- Aquatic resources are not anticipated to be affected by this project

Environmental mitigation measures

Measures to reduce, prevent or mitigate potentially adverse environmental effects will include:

- Controlling noise, mud, dust and other nuisance effects during construction
- Conducting nesting bird surveys prior to vegetation removal
- Implementation of Best Management Practices for Woodland Caribou (MNRF, 2013), as appropriate
- Vehicle inspections and washing of soil-moving equipment to reduce transference of invasive species

Proposed station layout

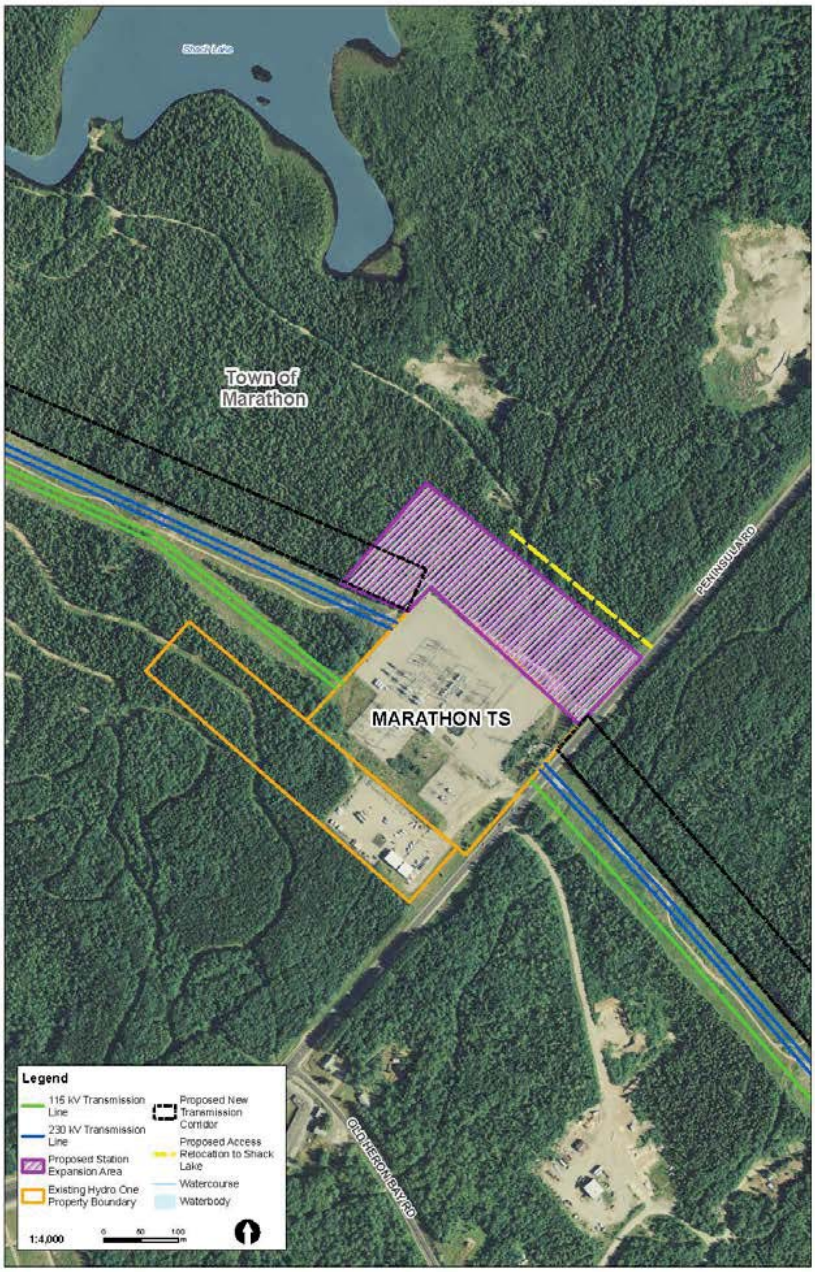


Partners in Powerful Communities

Access to Shack Lake

- The current access trail to Shack Lake lies within the proposed station expansion area and will require relocation to accommodate the proposed project
- Relocation of the trail will be completed before Hydro One starts construction within the proposed expansion area
- Hydro One will ensure that the existing access trail is available until its relocation has been completed

Access to Shack Lake: proposed new trail location

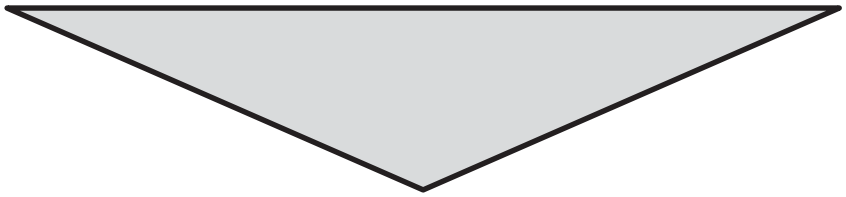


Partners in Powerful Communities

Timeline

PUBLIC AND STAKEHOLDER CONSULTATION

Notification to First Nations & Métis communities	**March 2017**
Notification to the Town of Marathon	**March 2017**
Class Environmental Assessment initiated	**May 2017**
Public Information Centre	**July 2017**
Notice of Completion & draft Environmental Study Report available for a public review & comment period	**March 2018**
Final ESR filed with the MOECC	**Anticipated spring 2018**
Decision from the OEB	**Anticipated spring 2018**
Access to Shack Lake rebuilt in its new location	**Anticipated mid-2018**
Start of construction, contingent on the outcome of the Class EA process and approval from the OEB	**Anticipated mid-2018**



Your input is important to us

Thank you for joining us at this Information Session.

Please share your input and feedback with us and complete a comment form before you go.

To share concerns, request information or to be added to the project contact list, please call or email:

Yu San Ong
t: +1 (416) 345-5031
e: YuSan.Ong@HydroOne.com

www.HydroOne.com/Projects/MarathonTS

For other inquiries please contact:

Devi Shantilal, Senior Advisor – Indigenous Relations
+1(416)345-4394 or Devi.Shantilal@HydroOne.com

Proposed Marathon Transformer Station Expansion
Hydro One Presentation for Garden Fiver First Nation
Tuesday April 3, 2018 at 6:00 pm
Garden River First Nation Community Centre

As part of the Class Environmental Assessment process for the proposed Marathon Transformer Station (TS) Expansion Project, a draft Environmental Study Report (ESR) was issued for a 30-day review and comment period starting on March 9, 2018. During the review period, Hydro One was invited to present the proposed project to Garden River First Nation (GRFN) at a community engagement session on April 3, 2018 at the Garden River Community Centre. Chief Paul Syrette, Council members, staff members, and a number of GRFN community members attended the session. Including three Hydro One staff, approximately 25 individuals were present.

During the session, the Hydro One representatives (listed below) described the proposed project using presentation slides and provided answers to questions raised by the community. Comment forms were also left for the community to submit comments on the draft Environmental Study Report (ESR) or on the project.

Hydro One staff in attendance:
Yu San Ong, Environmental Planner
Arnold Brakel, Project Manager
Devi Shantilal, Senior Advisor – Indigenous Relations

The presentation slides and the comment form are attached.

The draft ESR is also available on the project website
https://www.hydroone.com/about/corporate-information/major-projects/marathon

The table below lists the questions raised and Hydro One's responses.

	Question	Response
1	What is the price of expansion?	The cost of the Marathon TS Expansion Project is approximately $30 million.
2	Is the diagonal line on the map a road?	Yes, the diagonal line on the project area map represents Peninsula Road.
3	What is the process for acquiring Crown land? It is all Indian territory.	Hydro One is working with the Ministry of Natural Resources and Forestry (MNRF) to acquire the land to accommodate for the expansion. Due to the disposition of Crown land, the expansion project also triggers the MNR Class for Resource Stewardship and Facility Development Projects (MNR, 2002). Hydro

	Question	Response
		One has been working with and coordinating with the MNRF to ensure that our Class EA process also meets the requirements outlined in the MNR Class EA.
4	Did Hydro One bring a copy of their consultation process for the project?	No, Hydro One did not bring a copy of the consultation process undertaken for the Class EA to the session, but these materials are available on our website. Section 4 of the Class EA for Minor Transmission Facilities (Hydro One, 2016) outlines the consultation principles, methods and techniques. Section 4.1.1 specifically addresses consultation with First Nation and Metis communities. The Class EA parent document can be found here https://www.hydroone.com/about/corporate-information/major-projects/class-environmental-assessment
5	Which communities is Hydro one consulting with as part of the Marathon TS project? Is Hydro one consulting Ojibways of Batchewana, Missanabie Cree First Nation, and/or Michipicoten First Nation?	The January 26, 2017 letter from Ministry of Energy provided a list of communities to be consulted with as part of the Class EA process for this project. This letter can be found in Appendix A-3 of the draft ESR, within the 'Correspondence with First Nation and Metis Communities.' Garden River First Nation is listed under the interest-based communities. Section 3.2 of the draft ESR summarized the consultation undertaken as part of the Class EA process with the 19 communities identified by the Ministry of Energy.
6	Garden River First Nation may send a formal written request for extension of 30 days for providing comments on the EA Report.	Hydro One has noted this and confirmed in an email dated April 9, 2018 that they will provide a 30-day extension to Garden River First Nation to review the draft ESR, from April 3 to May 3, 2018.

	Question	Response
7	Is this consultation and accommodation? Is Hydro One classifying this meeting as accommodation? Garden River First Nation indicated the meeting should be treated as an information-sharing session, not consultation nor accomodation.	No, Hydro One was not classifying the meeting as accommodation. However, Hydro One will document all correspondence/meetings within the final ESR. Please see the attached document for an outline of the Hydro One Engagement and Consultation Process.
8	Did Hydro One do any Traditional Ecological Knowledge (TEK) studies?	No, Hydro One did not undertake any TEK studies as part of the Class EA.
9	How long has the Marathon Transformer Station been there for?	The existing Marathon TS has been there for approximately 35 to 40 years.
10	Are any chemicals used during construction?	No, chemicals will not be used for keeping dust down during construction of this project.
11	How many years will the construction take?	We anticipate that construction will take approximately 2.5 to 3 years to complete.
12	Were people hired for the work?	Hydro One has existing crews that will complete the work. Some outside contracting opportunities may be available to approved vendors.
13	Has work started?	No, work has not started. Work will not begin until we have all the necessary permits and approvals in place.
14	How far is the Marathon Transformer Station from the Town of Marathon?	The Marathon TS is located within the Town of Marathon, at approximately 3 km northeast of the central townsite.
15	n/a	Hydro One noted that the Shack Lake access trail will be relocated to accommodate the station expansion. This will be done in advance of station construction to provide continued access to the lake.
16	Why does Hydro One need to expand the station?	The existing station needs to be expanded to accommodate the proposed new EWT transmission line. The footprint of the existing station cannot

	Question	Response
		accommodate the new equipment that needs to be installed in order to connect the proposed new EWT transmission line to the station.
17	Is the transformer oil contaminated? Who will be watching Hydro One?	The oil used in the transformers is mineral oil. Operation of industrial stormwater management facilities is regulated by the Ontario Ministry of Environment and Climate Change (MOECC). As part of the project, Hydro One will obtain an Environmental Compliance Approval (ECA) from the MOECC for operation of the stormwater management system at Marathon TS, including a spill containment system for the proposed oil-filled reactors. The facility will discharge clean stormwater, meeting Ontario Provincial Water Quality Objectives to the ground surface adjacent to the station. Drainage discharge would not be in quantities or qualities expected to cause an adverse effect. Section 1.4.3 of the draft ESR outlines the necessary permits, licenses and approvals that may be required under municipal, provincial and federal legislations, in addition to the Class EA process.
18	Did Hydro One take into account cumulative effects of both projects (Marathon TS Expansion & EWT)?	No, Hydro One did not assess the cumulative effects of both the proposed Marathon TS Expansion Project and the proposed new EWT transmission line project as part of this Class EA.
19	Has Hydro One consulted other communities, e.g. Pic River First Nation and/or Pic Mobert First Nation?	Yes, other communities were notified as part of the Class EA process. Section 3.2 of the draft ESR summarized the consultation undertaken as part of the Class EA process with the 19 communities identified by the Ministry of Energy.
20	General inquiries regarding the consultation process that has been undertaken with	Hydro One clarified that Garden River First Nation had been identified by the Crown as a

	Question	Response
	other communities.	community for interest-based engagement. Hydro One noted that they would follow up with the Crown for delegation of the procedural aspects of the Duty to Consult with respect to Garden River First Nation if the community is asserting Rights in the area. The community indicated that they had interests in the area and would like some time to regroup internally.
Questions not related to the proposed Marathon Transformer Station Expansion Project		
1	How does power get to Wawa? Will poles and other infrastructure be put in Garden River First Nation?	We are not aware of any new poles and infrastructure being installed in Garden River First Nation as part of this project.
Questions related to the proposed new East-West Tie transmission line		
1	Is Hydro One working with SuperCom? (SuperCom is training some people but some skilled people did not get the opportunity. They will not need much training.)	Hydro One is currently not engaged with SuperCom in discussions related to training.
2	What will be the new East-West Tie (EWT) length?	The proposed new EWT transmission line will span from Wawa to Thunder Bay. The length of the proposed new line is approximately 400 to 450 km in length.
3	Is Hydro One using the existing transmission lines from Wawa to Thunder Bay?	Assuming this question refers to the proposed new EWT transmission line, we understand that the OEB will select a proponent to build the line on a corridor that is generally adjacent to the existing Hydro One corridor.
4	How much land will be needed for the new EWT transmission line?	The proposed new EWT transmission line is out of the project scope for the expansion of the Marathon TS.
5	Does Hydro One have the environmental report for the NextBridge proposed EWT project?	NextBridge's documents can be found on their project website at http://www.nextbridge.ca/

Hydro One Indigenous Project Engagement & Consultation Process Outline

At Hydro One we work proactively to build relationships with Indigenous Peoples based on understanding, respect and mutual trust. We respect the rights of Indigenous Peoples including the Aboriginal and treaty rights of Aboriginal peoples as recognized and affirmed in section 35 of the *Constitution Act, 1982*.

Hydro One developed over the years a project engagement and consultation process which is fully consistent with the criteria used by the courts to assess the adequacy of Indigenous engagement and consultation.

Hydro One is open to discuss mitigation/accommodation/benefit, including, but not limited to, capacity funding to participate in the engagement process, procurement and subcontracting opportunities, job training, employment and equity participation.

The major steps for the engagement and consultation process include:

1. Send notification letters to the Indigenous communities at the earliest planning stage possible two weeks prior to sending public notification letters;
2. Provide details of the project's scope, along with the project's location map;
3. Explain the regulatory and approval process that applies to the project;
4. Offer to meet with the Indigenous communities to discuss the project's scope and any issues, concerns or questions the Indigenous communities may have with respect to the project;
5. Identify possible mitigation or other measures to address issues, concerns or questions the Indigenous communities may have with respect to the project;
6. Consider procuring goods and services from Indigenous suppliers, and companies with strong relationships with local Indigenous communities, to participate throughout construction;
7. Seek to maximize the employment of members from local/regional Indigenous communities.
8. Where appropriate and as directed by the Crown, discuss accommodation regarding potential adverse impacts of the project on the Indigenous Interests (e.g., Aboriginal and treaty rights);

Please note: these engagement/consultation mitigation/accommodation/benefit elements are commensurate to the adverse effects of projects on the Indigenous Interests.

COMMENT FORM
Proposed Marathon Transformer Station Expansion Project

Garden River First Nation Presentation
April 3, 2018, Garden River First Nation Community Centre

Thank you for attending Hydro One's presentation on the proposed project. Please take a moment to answer a few questions, or take this comment form home and send it to us at your convenience. Your input and comments are important to us and helpful in planning this project.

1. Did you find tonight's presentation helpful in understanding the proposed project?
   Yes / No

2. Did you have an adequate opportunity to express your views/ask questions to the Hydro One's staff?
   Yes / No

3. Do you have any comments, questions, or concerns to share regarding tonight's session and/or this project?
   (Additional space on reverse)

_____

_____

_____

_____

_____

Please provide your contact information so that we can follow-up with you on your comments or questions, and add you to our project contact list for future communications.

Name: _____

Mailing Address & Postal Code: _____

Tel: _____ Email: _____

Please leave your comment form in the comment box at this meeting or send it in by April 9, 2018 to:

Yu San Ong, Environmental Planner, Hydro One
483 Bay Street, 12h Floor, North Tower, Toronto, ON M5G 2P5
Tel. +1 (416) 345-5031; Email: Yusan.Ong@HydroOne.com

Please be advised that any of your personal information contained on this comment form will become part of the public record files for this project, and may be released, if requested, to any person, unless you state on this form that you do not consent to your personal information becoming part of the public record files and disclosed to any person upon request.

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April 23, 2018
18-1045

Darlene Solomon
ERCD Manager
Garden River First Nation
7 Shingwauk Street
Garden River, Ontario
P6A 6Z8

Sent via email: dsolomon@gardenriver.org

Re: Review Letter Report – Class Environmental Assessment for the Proposed Marathon Transformer Station Expansion in Marathon, Ontario

Dear Ms. Solomon:

1. INTRODUCTION

TULLOCH Engineering Inc. (TULLOCH) was retained by Garden River First Nation ("Client") to conduct a desk top review of the DRAFT Environmental Study Report – Class Environmental Assessment for the Proposed Marathon Transformer Station Expansion (DRAFT ESR) located in Marathon, Ontario.

The DRAFT ESR deals with the proposed expansion of the existing Marathon Transformer Station located at 217 Peninsula Road in the Town of Marathon, by approximately five (5) Hectares onto adjacent Crown Land. The purpose of the project is to connect the existing transformer station and proposed expansion to the proposed new East-West Tie transmission line.

2. REVIEW METHODOLOGY

The DRAFT ESR was reviewed in its entirety by TULLOCH staff based on their specific area of expertise. The review was completed by the following personnel:

Bill Tibble, M.Sc. – Environmental Department Lead/Aquatic Ecologist

Mr. Tibble will review portions of the DRAFT ESR related to the natural environment.

Kelly Major, M.Sc. EP – Terrestrial Ecologist

Mr. Major reviewed portions of the DRAFT ESR related to the natural environment.

Mr. Kevin Jarus, M.Pl. - Planner

Mr. Jarus reviewed all aspects of the DRAFT ESR related to planning and land use.

Mr. Josh Lelievre, P.Eng. – Project Manager

Mr. Lelievre conducted a general overall review of the DRAFT ESR for compliance with the

applicable regulations and provided peer review of the final letter report.

Mr. Tyler Moody, A.Sc.T. – Senior Designer/Environmental Technologist

Mr. Moody summarized TULLOCH's findings and assembled them into the final letter report.

All findings relating to Section 4.6 - Natural Environment Resources represent desktop reviews of available geological, meteorological, hydrological and land-use data from local (i.e. geotechnical reports), provincial (i.e. Land Information Ontario, Ministry of the Environment and Climate Change) and federal (i.e. Environment and Climate Change Canada) sources as well as environmental field studies performed by AMEC Foster Wheeler in 2017. A Marathon TS Expansion – Baseline Natural Heritage Surveys report detailing the methods and findings of the environmental field studies is provided in Appendix B-3 of the AMEC report.

A Tulloch biologist reviewed data available from Land Information Ontario, Environment and Climate Change Canada and the Ministry of Northern Development and Mines to independently verify information reported by Hydro One. Land Information Ontario data reviewed by Tulloch are provided in Appendix X of this report. Tulloch also reviewed the methods and results of the Marathon TS Expansion – Baseline Natural Heritage Surveys report. Emphasis of these reviews was placed on (1) assessing the accuracy and reproducibility of the reported information, (2) assessing the completeness of the reported information, (3) assessing the appropriateness of methods applied, (4) identifying points requiring clarification, and (5) identifying knowledge gaps.

A Tulloch biologist reviewed the provided avoidance / mitigation strategies in Section 7.6 for appropriateness and for comparison against known industry standards. Tulloch also reviewed residual impacts anticipated after avoidance / mitigation are applied.

During the review of the DRAFT ESR each member of the TULLOCH review team provided a 'Comment' or 'Concern' for specific sections of the report based on their findings as deemed appropriate. All comments and concerns have been summarized below using the appropriate Section number as it correlates to the DRAFT ESR report.

3. FINDINGS

Section 3.2, 3.6 and 3.7.1 (First Nations and Metis Communities Consultation) Comment:

The Class Environmental Assessment for Minor Transmission Facilities (November 16, 2016) Guide Document ('the Guide'), provides the basis for the purpose, method, and expected outcomes for public consultation in relation to a proposed transmission facility project. It states, "Consultation is a two-way communication process to involve municipal, provincial, and federal government officials, government agencies, First Nations and Metis communities, potentially affected and interested persons, and interest groups in the planning, implementation and monitoring of a proposed undertaking." Central tenets of a successful consultation process include, but may not be limited to:

- The provision of relevant and timely information;
- Identification of all stakeholders that may potentially be affected by the undertaking;

- A flexible consultation process that ensures the collection of all concerns and/or information relevant to identified stakeholders; and,
- A flexible consultation process that allows for ongoing opportunities for all interested parties.

Methods to consult with stakeholders include, but are not limited to:

- Comment forms at Public Information Centres (PICs) or workshops;
- Direct correspondence with designated contact persons;
- Newsletters;
- Website information; and
- Targeted meetings & information sessions.

The Crown's Duty to Consult First Nations and Metis communities also applies to such projects. As such, the proponent (Hydro One) must fulfill the responsibilities delegated to it by the Crown to the satisfaction of the Crown prior to concluding such a Class EA process. A First Nation or Metis community may assert that a project negatively affects its Aboriginal or treaty rights at any time during the EA process. This independent peer review commissioned by Garden River First Nation ('GRFN') forms a component of First Nation consultation and information gathering which is appropriate under the broader Duty to Consult framework.

Hydro One, in accordance with the Crown's duty to consult and accommodate under section 35 of the *Constitution Act* contacted the Ministry of Energy (MOE) early in the project process to determine their responsibilities under the Act. In January 2017, the MOE confirmed such duty to consult and advised Hydro One that the following Nations and communities must be included in the Project consultation process:

- Ojibways of Pic River First Nation;
- Pays Plat First Nation;
- Pic Mobert First Nation;
- Métis Nation of Ontario (MNO);
- MNO Greenstone Métis Council;
- MNO Superior North Shore Métis Council; and,
- MNO Thunder Bay Métis Council.

In addition to these communities, Hydro One consulted with:

- Animbiigoo Zaagi'igan Anishinaabek;
- Biinjitiwaabik Zaaging Anishinaabek;
- Bingwi Neyaashi Anishinaabek;
- Fort William First Nation;
- Ginoogaming First Nation;
- Long Lake No. 58 First Nation;
- Michipicoten First Nation;

- Missanabie Cree First Nation;
- Ojibways of Batchewana;
- Ojibways of Garden River;
- Red Rock Indian Band; and,
- Red Sky Métis Independent Nation.

Consultation generally took the form of:

1. Initiation of consultation through email and registered mail notification letters (March 2017);
2. Follow-up calls and/or emails subsequent to notification mailings; and
3. Invitations to a Public Information Centre, held at the Marathon Centre Mall on July 25, 2017.

The majority of First Nations and Metis communities provided limited or no comment on the proposal. Community specific consultation efforts were made for the following stakeholders, as requested by each respective group:

- Michipicoten First Nation: Requested Hydro One present the Project to the community. A subsequent targeted Information Presentation was made to community members in June 2017.

- Ojibways of Garden River: Requested Capacity Funding to review the draft ESR, with discussion between Hydro One and the FN regarding funding opportunities. This review is understood to be a result of such discussions.

- Red Sky Métis Independent Nation: Requested notification if any artifacts or culturally significant items are recovered during project construction.

- Animbiigoo Zaagi'igan Anishinaabek: Requested Hydro One consider employment opportunities for community members.

Generally, the protocol followed by Hydro One to ensure effective consultation with First Nation and Metis communities under the Environmental Assessment Act was appropriate. The Ministry of Energy was contacted regarding Duty to Consult obligations, appropriate notices of the project's commencement and Public Information Centre were provided in a timely manner, and requests for further information or separate presentation to any community that requested such were actioned appropriately.

We note that section 7.3 of the report addresses protocol to be followed should any archaeological resources or human remains be found during construction. While we agree with the intention to contact a licensed archaeologist if such resources or remains are found, we strongly suggest that notification to all First Nation and Metis communities that have an interest in the project/location also be immediately contacted so that – in the event such resources or remains are First Nation

in origin, protocols for handling such resources can be established immediately prior to the disturbance or removal of such from the property.

Section 4.3 and 7.3 (Impacts to Cultural Heritage Resource) Comment:

Hydro One issued notices of project commencement and formal notice of the Public Information Centre to the MTCS in May 2017. MTCS responded requesting that Hydro One complete the MTCS *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscape Checklist,* and that the project be screened with the MTCS *Criteria for Evaluating Archaeological Potential.* We also understand a Stage 1 Archaeological Report was prepared, which showed no archaeological potential within the Project's expansion area.

The *Criteria for Evaluating Potential for Built Heritage Resources, Cultural Heritage Landscape Checklist* and *Criteria for Evaluating Archaeological Potential* both found no potential for archaeological or cultural resources in the study area. However, the *Criteria for Evaluating Potential for Built Heritage Resources, Cultural Heritage Landscape Checklist* as found in Appendix A-3 includes, under 'other considerations', the need to identify if there is any local or Aboriginal knowledge or documentation suggesting that the property has any cultural heritage significance. Responses by Hydro One are negative in this regard.

We note however that the Class EA Commencement notices provided to First Nation and Metis communities do not explicitly solicit feedback regarding whether the study lands are culturally significant, or if any local knowledge of past human activities exist, with regard to First Nation or metis communities. As such, we recommend that future Class EA First Nation and Metis consultation efforts include more targeted feedback prompts in the Notice of Project Commencement to ensure the scope of information desired from local First Nation and Metis communities, and any valuable information such communities may hold, are brought forward to Hydro One at the onset of a project.

Section 3.5 and 3.7.4 (Municipal Government and Agencies Consultation) Comment:

The Class EA Guide document requires that elected officials and senior municipal staff be informed about proposed projects, and that such stakeholders should receive information in advance of such being distributed publicly to ensure appropriate public inquiry responses can be provided by the municipality.

Hydro One issued notices of project commencement and formal notice of the Public Information Centre to local municipal stakeholders in May and July 2017 respectively. Consultation with the Town of Marathon included, but may not have been limited to:

- Provision of Notices of Project Commencement and Notice of Public Information Centre;
- Presentation by Hydro One to the Town 'Municipal Matters Meeting';
- Multiple telephone conferences with senior Town staff, and email correspondence to the Mayor;
- A commitment by Hydro One to work with the Town on the final design of the relocated Shack Lake access trail plan.

Given the Guide's direction to ensure early, timely, and transparent communication with local municipal stakeholders, it appears that the draft Class EA has met its duty under the Act with regard to municipal consultation

Given this review must depend on the Phase 1 Archaeological Report, it appears the conclusion that there is no potential for disturbance of archaeological or culturally significant resources is appropriate.

Section 3.6.1 (Utilities) Comment:

Was contact ever made with Superior Propane? It was reported that email and correspondence sent through Canada Post was returned and no response to an email sent to general customer service was received.

Section 3.6.3 (Potentially Affected and Interested Persons, Businesses, and Interest Groups Consultation) Comment:

The EA Guide requires that consultation opportunities be provided to public groups and individuals, beginning with initial notification. In relation to this Class EA process and further to the requirement for Hydro One to contact local interested persons and businesses, notices of the project were sent to all property owners within 800m of the expansion site.

Targeted community groups that were contacted as part of the EA process included:

- Marathon Cross Country Ski and Snowshoe Club;
- Superior Ridge Runners ATV Club; and,
- Marathon Snow-Kickers Snowmobile Club

No notable concerns were expressed by interested persons or interest groups either in writing or at the Public Information Centre.

Section 4.1 (Impacts to Agricultural Resources) Comment:

With regard to assessing the impacts of any route or site planning project on agricultural resources, Hydro One considers the capacity for the subject lands to support agricultural production, along with present use and productivity of such lands. In the absence of soils classification data for this area within the Canada Land Inventory, a desktop review of potential for agricultural land impacts was completed. No agricultural potential or negative impacts were identified given the predominance of forest-cover in the study area. We agree with such assessment.

Section 4.4 and 7.4.1 (Impacts to Human Settlements) Comment:

The Class EA includes a summary of relevant land use planning policies applicable to the study area. While the Provincial Policy Statement and Town of Marathon Official Plan (2016) are referenced, the Growth Plan for Northern Ontario is excluded. We recommend inclusion of consideration of this document and a brief summary of how the proposal conforms to or does not conflict with the Plan.

We note that the Class EA states "the Town of Marathon's Official Plan (2016) and other planning documents are required to comply with the PPS to ensure consistency." However, such documents must be "consistent with", rather than "comply" with the PPS. We further note that the Schedule A to the Town's zoning by-law indicates the property is zoned "Ru" *Rural*, while section 4.4.1 states that the study area is not zoned.

It is understood that Section 62(1) of the *Planning Act* provides that undertakings by Hydro One which are approved under the *Environmental Assessment Act* are not subject to Planning Act approvals. We recommend the inclusion of such a note in the EA document.

Section 4.7 and 7.7 (Impacts to Recreational Resources) Comment:

Regarding impact to recreational resources within the study area, the EA notes that the Shack Lake access trail which traverses the area proposed for the TS expansion is used by local residents for a multitude of recreational purposes, including walking, running, show shoeing, ATV use and snowmobiling. A series of secondary trails extend from the primary Shack Lake trail. A number of comments were received through the EA process expressing concern with keeping the trail operational both during and after the project's construction.

In response to such comments, Hydro One has proposed the following mitigative measures:

- Communicating the timing of construction activities to the Town, local land users and residents;
- Constructing the relocated portion of the trail prior to construction of the TS expansion; and,
- Providing temporary signage during the construction and relocation phase, as required.

We note that no details regarding means of communication with local land users or residents are provided. As such, we recommend Hydro One engage the Town to determine appropriate means to ensure such communication is provided effectively throughout the project's lifecycle.

Section 4.2, 7.2 and 7.9 (Forestry Resource Effects & Mitigation Measures) Comment:

The proposed expansion is anticipated to result in the loss of approximately five hectares if forested lands. Such land is currently managed for timber harvesting by the Nawiinginokiima Forest Management Corporation (NFMC), The Class EA discusses impacts on forestry resources within the lens of the removal of trees required to relocate the Shack Lake access trail and during the construction of the transformer extension. To mitigate any impacts to forestry resources, Hydro One intend to ensure any agreed upon commitment made with the Ministry of Natural

Resources and the NFMC are met. We recommend that any agreement entered into be made publicly available - if possible - to ensure transparency in the planning process and to ensure those individuals whom use the forested area for recreational purposes are aware of the impacts and resulting benefits to forested lands as a result of this project.

Section 4.6 (General Comment) Comment:

Figures are not numbered throughout this section.

Section 4.6.1 (Physical Environment) Comment:

Surface geology is characterized by Hydro One as undifferentiated igneous and metamorphic bedrock. It is unclear from where these data were derived; citation required. Review of the Northern Ontario Engineering Geology Terrain Study (NEOGTS 2017) provided by the Ministry of Northern Development and Mines indicates surficial geology as “Ice Contact Delta” of glaciofluvial origin. Primary soil material is sand, with gravel as a secondary material. NOEGTS data appears to be consistent with borehole data outlined in Section 4.6.4 (6.1m to 8.2m of overburden with upper 2.4 to 3.0m consisting of sand and gravel).

Section 4.6.2 (Atmospheric Environment) Comment:

The report states that the closest meteorological station to the study area is the Wawa Meteorological Station approximately 186km southeast of the site. A review of historical climate data available from Environment and Climate Change Canada indicates that data exists for Marathon. Hourly data appears to be available from 2015 to present (Climate ID 6044967). Records of monthly weather data appear to exist from 1945 to 1984 (Climate ID 6044959); some of these latter records appear incomplete.

Section 4.6.3 (Surface Water Resources) Comment:

Methodology appears appropriate.

Section 4.6.4 (Groundwater Resources) Comment:

Methodology appears appropriate.

Section 4.6.5 (Designated or Special Natural Areas) Comment:

Tulloch reviewed data obtained from Land Information Ontario and agrees with the conclusion of this section.

Section 4.6.6 (Wetlands) Comment:

LIO data indicates the site is situated in Ecoregion 3W (not 3E). This point also applies to Section 2.1.1 of the Marathon TS Expansion – Baseline Natural Heritage Surveys report (AMEC 2018).

Section 4.6.6 (Fish Habitat) Comment:

Please provide a reference for fish species known to occur in Shack Lake. Fish species listed here are beyond the information provided in LIO (ARA polygon) or the MNRF Fish On-line web tool.

The thermal Regime of Shack Lake is not included. LIO data (ARA Polygon) indicates that Shack Lake is considered a Cold-Water system.

The report states that "detailed documentation of fish habitat within the study areas was not undertaken for this Class EA as preliminary scoping did not identify any adverse effect to this aquatic resource feature". The Marathon TS Expansion – Baseline Natural Heritage Surveys report (AMEC 2018) does not investigate any form of fish habitat within the study area. It may be reasonable to assume that Shack Lake will not be adversely impacted by this project and, by extension, that fisheries studies in this waterbody are not warranted. None-the-less, field studies by AMEC 2018 should clarify if any other potential direct or indirect fish habitat exists within the study area (e.g. intermittent streams) to confirm the validity of this preliminary scoping.

Section 4.6.6 (Species at Risk) Comment:

No list of species at risk associated with the Marathon area (or Nipigon District of the MNRF) is provided. No such list is provided in the Marathon TS Expansion – Baseline Natural Heritage Surveys report (AMEC 2018).

Section 4.6.6 (Species at Risk) Comment:

Plant species listed in Table 2 of the Marathon TS Expansion – Baseline Natural Heritage Surveys report (AMEC 2018) includes shrub species listed as trees (Green Alder, Speckled Alder, Pine Cherry, Showy Mountain Ash) and shrubs species listed as forbs and grasses (Leatherleaf, Skunk Current, Small Cranberry).

Section 4.6.6 (Species at Risk) Concern:

Based on Section 2.1 of the Marathon TS Expansion – Baseline Natural Heritage Surveys report (AMEC 2018) it is unclear to what extent soil substrates were ground-truthed in the field. No mention is made of soil profile extraction and description. ELC field datasheets provided in Appendix B of the AMEC (2018) report appear to omit all soils related data (sections are left

blank). Given that soil Effective Texture and soil Moisture Regime are the first properties keyed in the Boreal Manual of the ELC system (MNRF 2009), how were site Ecosites determined? The Ontario Land Cover Compilation (OLCC) available from Land Information Ontario suggest the presence of treed swamps immediately abutting the north and west sides of the existing TS footprint and within the footprint of the proposed expansion. Soil Moisture Regime, which is determined based on the presence / depth of soil mottling and gley, forms the bases for the differentiation of wetland from upland areas (including treed swamps). Soil moisture can also have implications regarding wildlife habitat usage; specifically, site suitability for ground nesting birds such as Eastern Whip-poor-will (THR).

Section 4.6.6 (Species at Risk) Concern:

Based on Section 2.2.2 of the Marathon TS Expansion – Baseline Natural Heritage Surveys report (AMEC 2018), surveys were performed targeting Eastern Whip-poor-will (THR) and Common Nighthawk (SC). Surveys were cited as generally conforming to the Draft Canadian Night Jar Protocol (Bird Studies Canada, 2016). This protocol is not intended for the confirmation of Whip-poor-will presence / absence for land-use planning purposes. In Ontario, the MNRF provides technical direction on the targeted survey of Whip-poor-will. The MNRF Survey Protocol for Whip-poor-will, issued in draft in 2014 (Appendix Y), stipulates the timing, methods and survey effort required to defensibly establish species presence and absence. In particular, the MNRF protocol requires three surveys performed from May 18 to June 30. Surveys are performed under appropriate weather conditions when the moon is no less than 50% illuminated. A bearing and estimated distance is recorded to each calling male from multiple acoustic vantage points to permit the triangulation of each male's position. Observations from multiple evenings are required to map defended territories. The locations of defended territories are required to categorise habitat according to the MNRF General Habitat Description for Eastern Whip-poor-will (Caprimulgus vociferous) (Appendix Y). Surveys performed by AMEC appear have been conducted at some time between July 7 and July 9; marginally later than the recommended survey period. The exact date(s), the number of surveys, and the weather conditions are not provided. Section 2.2.2 of AMEC 2018 states that the Bird Studies Canada protocol recommends two surveys be performed during the breeding season. It is unclear if two surveys were performed by AMEC at this site. It is also unclear where the two-night survey effort citation was acquired. The Bird Studies Canada protocol (attached in Appendix Y) is as an annual roadside citizen science monitoring initiative where volunteers travel roadways only once per year. These Bird Studies Canada data are intended for multi-year monitoring of Whip-poor-will (and other Nightjar species) at a national level; they are not appropriate for site specific surveys to satisfy proponent due diligence under the Endangered Species Act. TULLOCH reviews of the Atlas of the Breeding Birds of Ontario, MNRF NHIC and eBird.org databases found no records of Eastern Whip-poor-will in vicinity to the Study Area. Breeding by Eastern Whip-poor-will is not prevalent along the north shoreline of Lake Superior (Cadman et al 2007). Sandilands (2010) considers the Marathon area to be included within the "Marginal Breeding" range for the species. None-the-less, given

the ecosites observed within the Study Area and the presence of considerable edge habitat resulting from existing utility corridors, suitable habitat for this species is likely present. Clarity should be provided regarding the quantity and quality of nesting habitat for Eastern Whip-poor-will within the Study Area as well as the quantity and conditions of survey effort applied targeting this species. A risk assessment should be performed in light of these details and the value of additional survey effort should be evaluated.

Section 4.6.6 (Species at Risk) Concern:

Endangered species of bat are not considered. According to Bat Conservation International (BCI 2018) and Bats of Ontario (Thorne 2017) at least two species of Endangered Bat could occur within the Study Area; Little Brown Myotis (Myotis lucifugus) and Northern Myotis (Myotis septentrionalis). Table 4-1 indicates that Bat Maternity Colonies are unlikely on site due to limited suitable habitat. Male bats and non-gravid females of the Myotis genus will roost singularly, or in small groups, in temporary and transient 'Day Roosts'. Day roosts can occur across a broader range of habitat conditions and can include most naturally and artificially created tight spaces created in trees (e.g. cavities, crevices and sloughing bark), rock crevices, cracked masonry and abandoned machinery. Discounting day roosting by bats, including endangered Myotis species, is difficult in forested habitats. Bats day roosting in tree crevices could be placed at risk of harm or mortality if vegetation is cleared during the bat active season. This presents a risk of contravention of Section 9(1)(a) of the Ontario Endangered Species Act.

Section 4.6.6 (Figure 4-7) Comment:

Ecosite B055Ts is listed. The suffix "Ts" is not a vegetation cover class recognised by the Boreal Manual of the ELC system. This ecosite is not listed in Table 1 of the Marathon TS Expansion – Baseline Natural Heritage Surveys report (AMEC 2018) but is included in Figure 2 of the AMEC report. Please clarify if this is a typographical error or symbolic of some other community property.

Section 4.6.6 (Wildlife and Significant Habitat) Comment:

High level results for anuran and avian studies are summarized from the Marathon TS Expansion – Baseline Natural Heritage Surveys report (AMEC 2018) provided in Appendix 3B. Section 4.6.6 should also briefly state the protocols referenced by AMEC 2018 and survey effort applied.

Section 4.6.6 (Wildlife and Significant Habitat) Comment:

The Migratory Birds Convention Act (MBCA 1994) should be cited in this section and its relevance identified in relation to the undertaking.

Section 4.6.6 (Wildlife and Significant Habitat) Comment:

Tulloch independently verified Ontario Breeding Bird Atlas and Ontario Reptile and Amphibian Atlas records cited in the Marathon TS Expansion – Baseline Natural Heritage Surveys report (AMEC 2018). Tulloch findings agree with AMEC 2018.

Section 6.2 (Construction Phase) Comment:

Erosion and sediment control should be listed under all headings (Relocation of Shack Lake Access Trail, Station Expansion, Line Work and Future Station Work) as part of the Site preparation.

Section 7.6 (General Comment) Comment:

For consistency, consider adopting bullet points for all sections (or paragraph form for all sections).

Section 7.6.1 (Physical Environment) Comment:

Mitigations and anticipated impacts appear appropriate. Could Hydro One clarify if there are any anticipated risks associated with spills from fluids contained with the transformer equipment? If so, appropriate mitigation measures should be presented to prevent impacts on the environment.

Section 7.6.2 (Atmospheric Environment) Comment:

Mitigations and anticipated impacts appear appropriate.

Section 7.6.3 (Site Preparation) Comment:

The report states “During construction, it is expected that changes to stream flow and water levels in adjacent aquatic ecosystems (i.e. watercourses, wetlands, etc.) will not occur as these hydraulic features were not identified within the study area.”. Please clarify if the assumed absence of hydraulic features is based on desktop review or if this absence was confirmed through field studies.

Section 7.6.4 (Groundwater Resources) Comment:

Mitigations and anticipated impacts appear appropriate.

Section 7.6.5 (Designated or Special Natural Areas) Comment:

Section appears appropriate.

Section 7.6.6 (Natural Heritage Features) Comment:

Reference is made to protective barriers. Please elaborate. Is this intended to be similar to reptile exclusion fencing? Is there a Best Management Practice that will be referenced for this?

Section 7.6.6 (Natural Heritage Features) Comment:

Environment and Climate Change Canada considers Marathon to be Nesting Zone C5 (not C4). The General Nesting Period for the Zone is considered April 20 to August 29 for forested habitat (ECCC 2018).

Section 7.6.6 (Natural Heritage Features) Comment:

Methodology for nest searches in advance of vegetation removal (if required during the nesting season) should indicate when the searches are to be performed relative to the start of disturbance.

Section 7.6.6 (Natural Heritage Features) Comment:

Report proposes the retention of protective buffer zones around active nests found on site. These zones are proposed to range from 10m to 500m depending on species. At minimum, all buffers should be greater in radius than the height of the canopy. This will ensure that trees felled in vicinity cannot damage the active nests.

Section 7.6.6 (Natural Heritage Features) Comment:

The Migratory Bird Convention Act (MBCA 1994) is cited in the text but not included in the References section.

Section 7.6.6 (Fish Habitat) Comment:

Please clarify if the assumed absence of fish habitat is based on desktop review or if this absence was confirmed through field studies.

Section 7.6.6 (Species at Risk) Concern:

As per comments to Section 4.6.6, please clarify if this project presents a risk of Eastern Whip-poor-will or its habitat.

Section 7.6.6 (Species at Risk) Concern:

The potential for day roosting by endangered bat species Little Brown Myotis (Myotis lucifugus) and Northern Myotis (Myotis septentrionalis) should be considered if the clearing of vegetation is to be performed during the bat active season. Searches for evidence of bat day roosting may be

warranted. The MNRF should be consulted for clarification of when bats are considered active in Nipigon District.

Section 7.6.6 (Species at Risk) Comment:

Report proposes the "use of gates or other physical barriers to reduce additional traffic on any access roads where feasible". Is this an option given concerns raised during public consultation regarding public access to Shack Lake (Section 3.7.5)?

Section 7.6.6 (Species at Risk) Comment:

Mitigations for Woodland Caribou appear appropriate.

Section 7.8 (Impacts to Visual and Aesthetic Resources)

The class EA has identified that the existing 50m of vegetation between the transformer site and Peninsula Road would remain untouched and provide a natural screening of the new expansion from the road. Based on aerial imagery, we agree that such screening is appropriate.

4. CONCLUSIONS

The above noted comments and concerns identified in Section 3.0 (Findings) should be reviewed with the author of the DRAFT Environmental Study Report – Class Environmental Assessment for the Proposed Marathon Transformer Station Expansion located in Marathon, Ontario. All Sections identified to be of 'Concern' should be subjected to an in-depth review to ensure the reported findings are complete and accurate.

CLOSURE

We trust you will find the information presented acceptable. We thank you for the opportunity to provide our services. If you have any questions, do not hesitate to contact the undersigned at your convenience.

Sincerely,

TULLOCH Engineering Inc.

Tyler Moody, A.Sc.T.
Senior Designer/Environmental Technologist

TM/tm

Attached: Appendix X (TULLOCH Desk Top Data Review)

Appendix Y (Whip-poor-will General Habitat Description and Approved Survey Protocols)

References

AMEC Foster Wheeler (AMEC). 2018. Marathon TS Expansion – Baseline Natural Heritage Surveys.

Bat Conservation International, Inc. (BCI). 2018. BCI Species Profiles. Cited online: http://batcon.org.

Bird Studies Canada (BSC). 2016. Canadian Nightjar Survey Protocol DRAFT.

Endangered Species Act (ESA), S.O. 2007, c. 6. Retrieved from the Government of Ontario Website: http://www.ontario.ca/laws/statute/07e06 (accessed April 2018).

Environment and Climate Change Canada (ECCC). 2017. General Nesting Periods of Migratory Birds. https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/general-nesting-periods.html (accessed April 2018).

Northern Ontario Engineering Geology Terrain Study (NEOGTS). 2017. Ministry of Northern Development and Mines. https://www.mndm.gov.on.ca/en/mines-and-minerals/applications/ogsearth/geology-terrain-noegts (accessed April 2018).

Migratory Birds Convention Act (MBCA), S.C. 1994, c. 22. Retrieved from the Justice Laws Website. http://laws-lois.justice.gc.ca/eng/acts/M-7.01/ (Accessed April 2018)

Ministry of Municipal Affairs and Housing (MMAH). 2014. Provincial Policy Statement, 2014.

Ministry of Natural Resources and Forestry (MNRF). 2009. Boreal Region - Ecosites of Ontario (Operational Working Draft).

Ministry of Natural Resources and Forestry (MNRF). 2014a. General Habitat Description for the Eastern Whip-poor-will (Caprimulgus vociferous).

Ministry of Natural Resources and Forestry (MNRF). 2014b. Draft Survey protocol for Eastern Whip-poor-will.

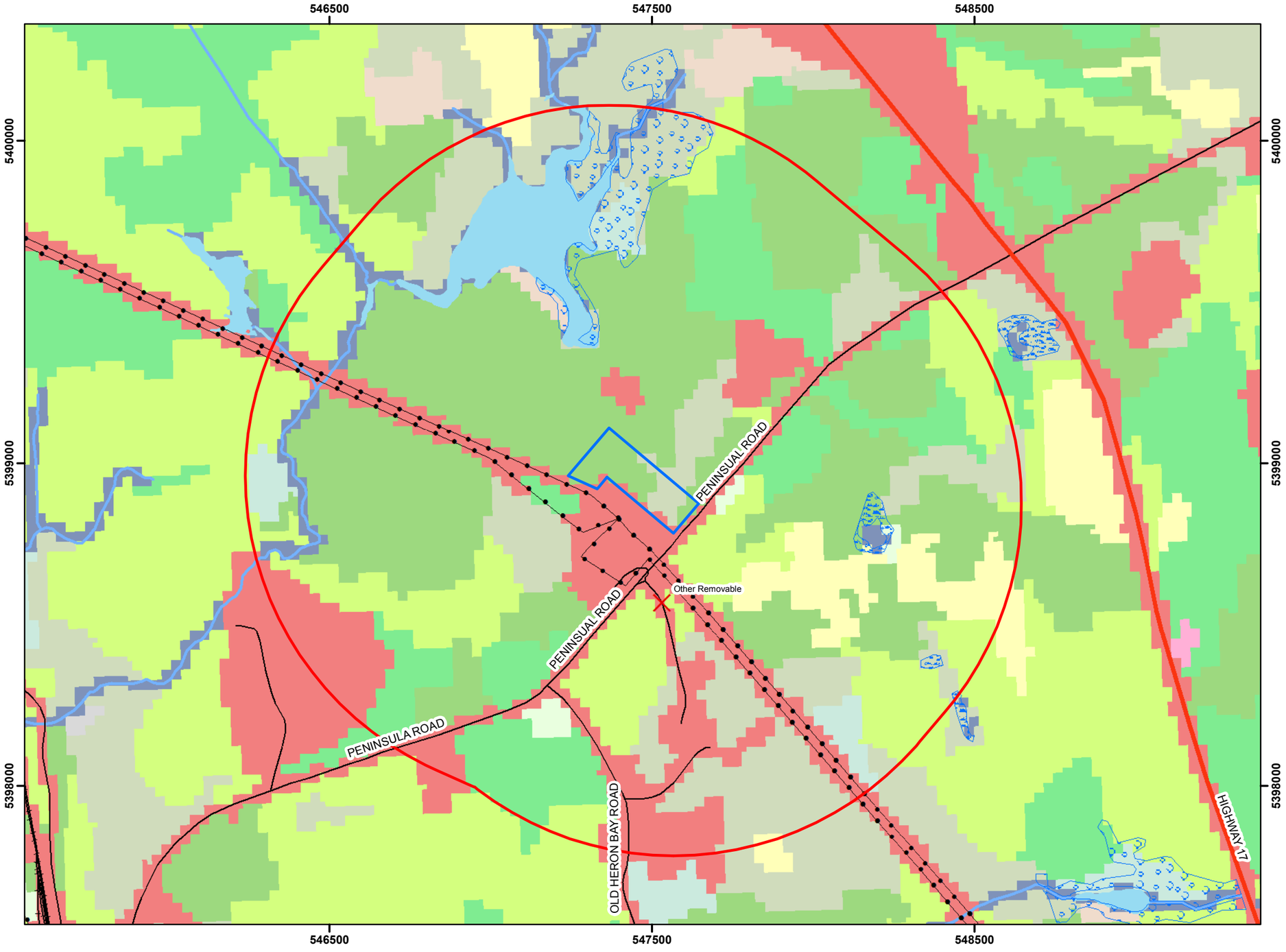
Thorne, T.J. 2017. Bats of Ontario. Hawk Owl Publishing. Newcastle, Ontario

APPENDIX X

TULLOCH Desk Top Data Review

Garden River FN
Hydro One ESR Review

Natural Heritage
Background Review



Coordinate System: NAD 1983 UTM Zone 16NTransverse Mercator

0 0.25 0.5 1 1.5 2 Kilometers

Terrestrial Habitat

- MNR Road Barriers
- Highway
- Local Road
- Rail Line
- Utility Line
- Caribou Range Boundary
- FRI Wetland (Open)
- FRI Wetland (Treed)
- OHN Waterbody
- OHN Watercourse

Ontario Land Cover Compilation Version 2

- 1 - Clear Open Water
- 6 - Swamp
- 7 - Fen
- 8 - Bog
- 11 - Sparse Treed
- 13 - Deciduous Treed
- 14 - Mixed Treed
- 15 - Coniferous Treed
- 18 - Disturbance
- 25 - Sand/Gravel/Mine Tailings/Extraction
- 26 - Bedrock
- 27 - Community/Infrastructure

SCALE: 1:12,682

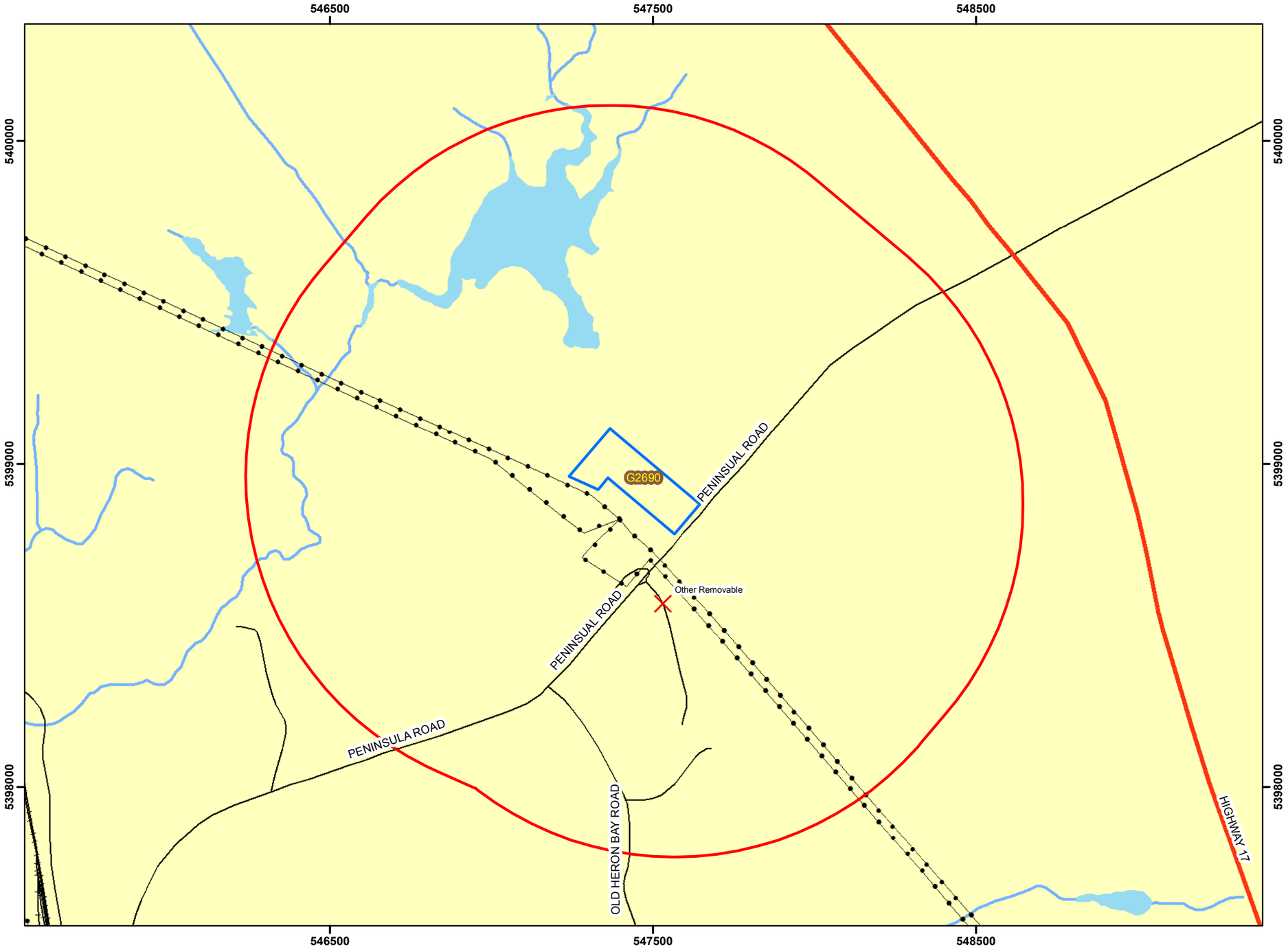
DATE: 4/10/2018

Data Provided by Land Information Ontario:
Data updated as of February 2017.

TULLOCH ENVIRONMENTAL

Garden River FN
Hydro One ESR Review

Natural Heritage
Background Review



Protected Areas

- MNR Road Barriers
- Highway
- Local Road
- Rail Line
- Utility Line
- OHN Waterbody
- OHN Watercourse

CLUPA Designation

- General Use Area

Coordinate System: NAD 1983 UTM Zone 16NTransverse Mercator

0 0.25 0.5 1 1.5 2 Kilometers

SCALE: 1:12,682

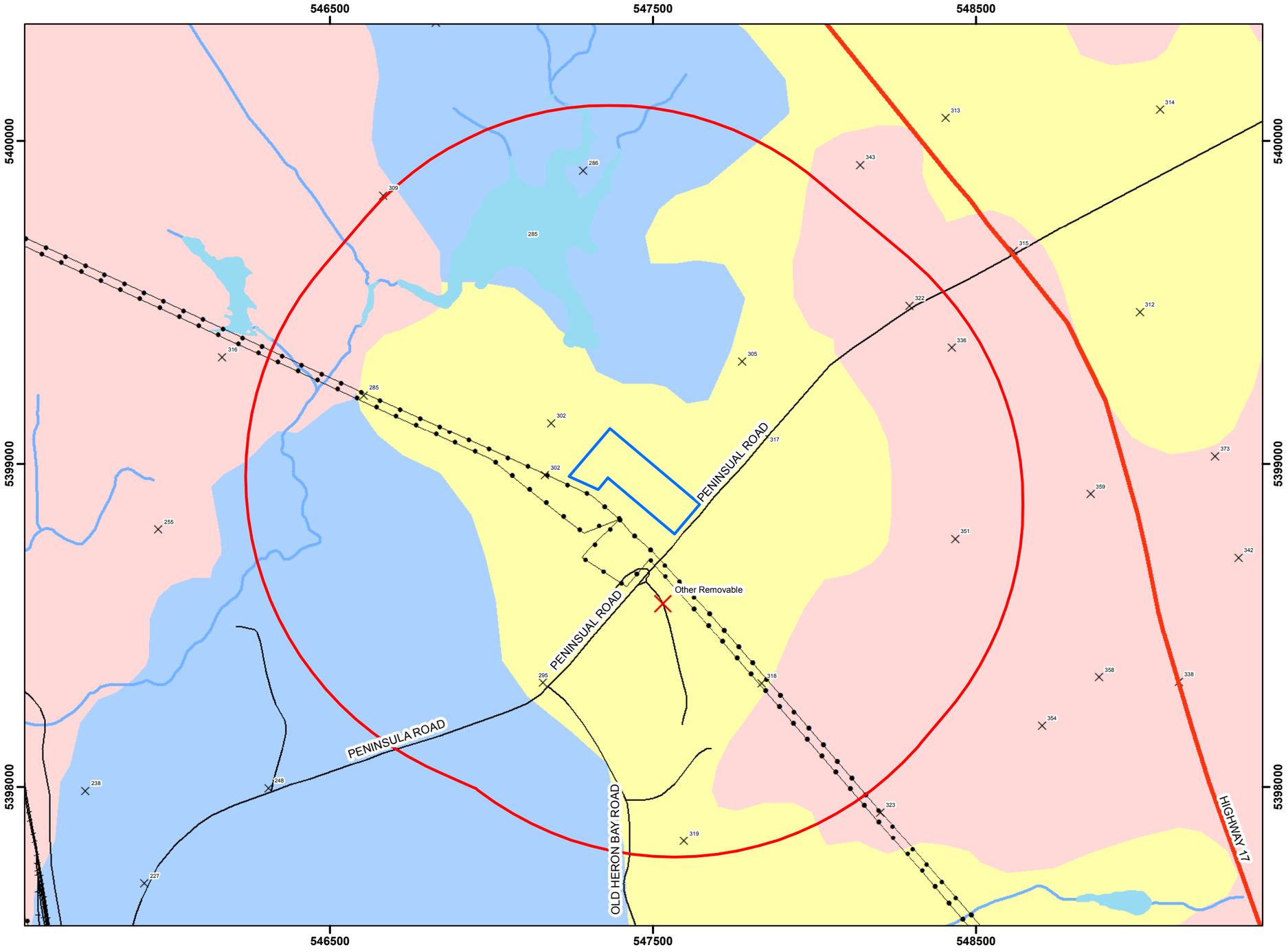
DATE: 4/10/2018

Data Provided by Land Information Ontario:
Data updated as of February 2017.

TULLOCH ENVIRONMENTAL

Garden River FN
Hydro One ESR Review

Natural Heritage
Background Review



Coordinate System: NAD 1983 UTM Zone 16NTransverse Mercator

0 0.25 0.5 1 1.5 2 Kilometers

Geology and Soils

- MNR Road Barriers
- Highway
- Local Road
- Rail Line
- Utility Line
- OHN Waterbody
- OHN Watercourse
- Spot Height

NOEGTS Geologic Terrain

LANDFORM

- Ice contact delta
- Raised beach
- Glaciolacustrine delta
- Bedrock knob

SCALE: 1:12,682

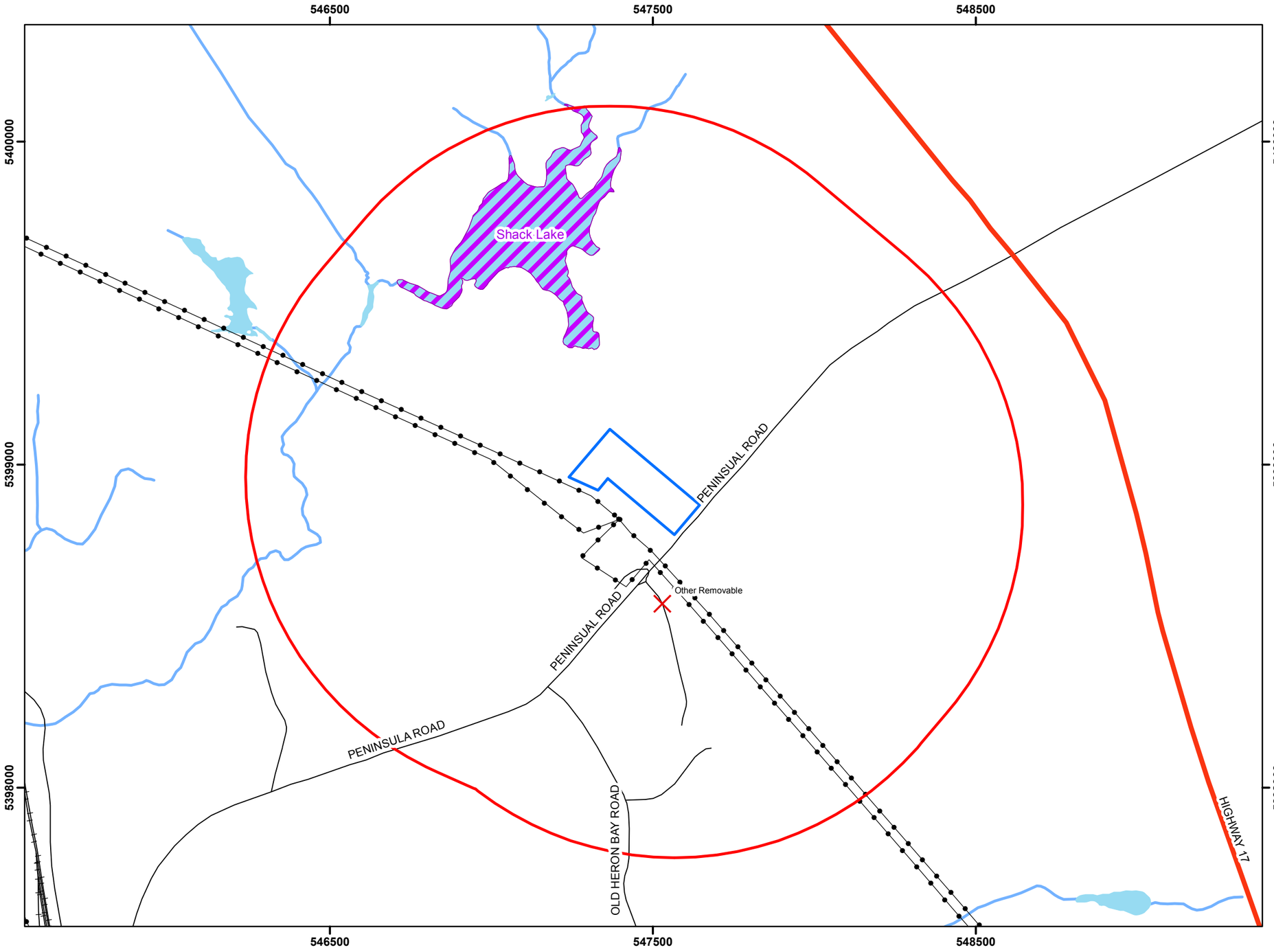
DATE: 4/10/2018

Data Provided by Land Information Ontario:
Data updated as of February 2017.

TULLOCH ENVIRONMENTAL

Garden River FN
Hydro One ESR Review

Natural Heritage
Background Review



Aquatic Habitat

- MNR Road Barriers
- Highway
- Local Road
- Rail Line
- Utility Line
- OHN Waterbody
- OHN Watercourse
- Primary Watershed
- Secondary Watershed
- Tertiary Watershed
- Quarternary Watershed

ARA Waterbody Regime

- Unknown Regime
- Cold Water
- Cool Water
- Warm Water

Coordinate System: NAD 1983 UTM Zone 16NTransverse Mercator

0 0.25 0.5 1 1.5 2 Kilometers

SCALE: 1:12,682

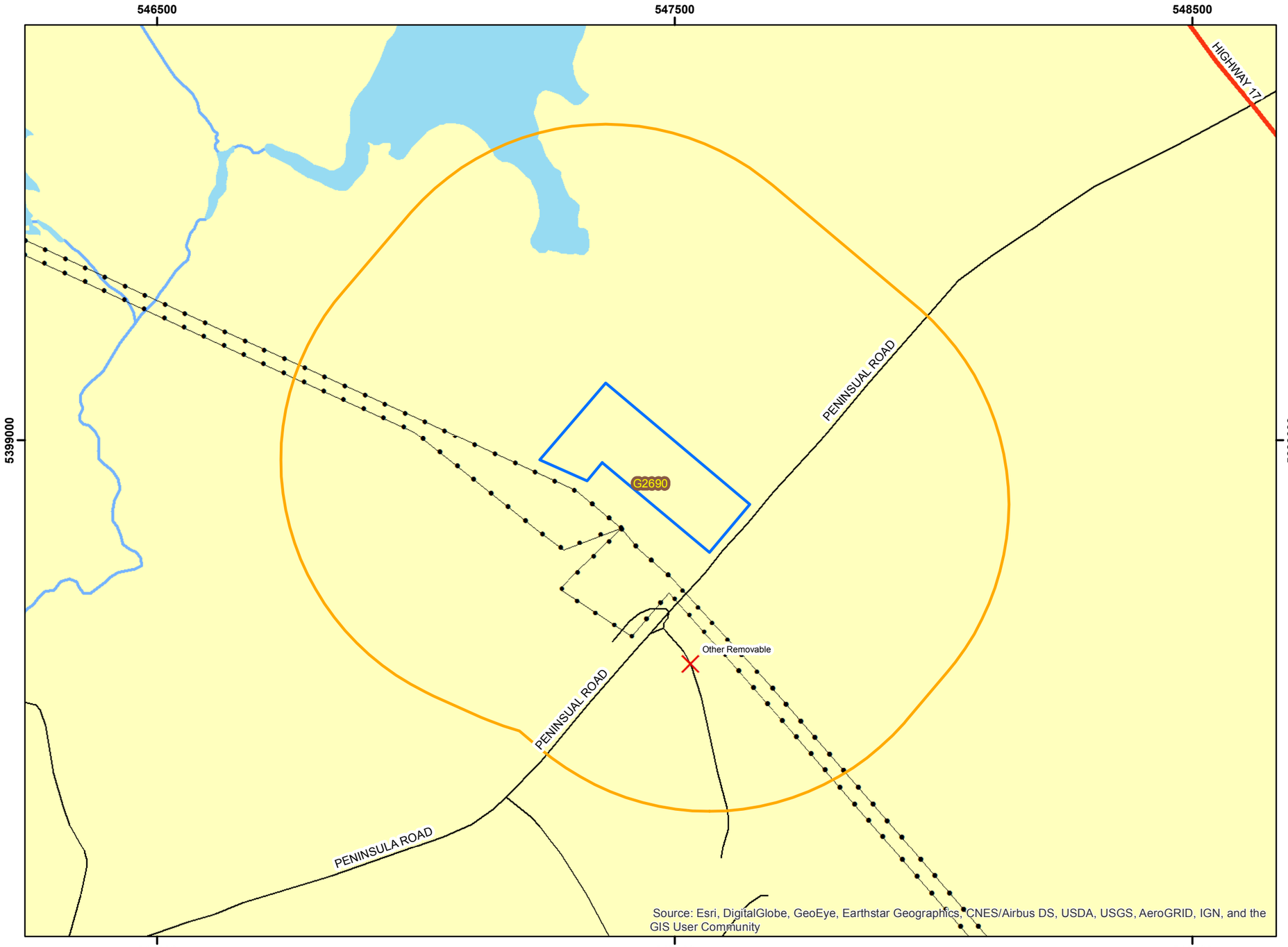
DATE: 4/10/2018

Data Provided by Land Information Ontario:
Data updated as of February 2017.

TULLOCH ENVIRONMENTAL

Hydro One ESR Review
Marathon TS Expansion

Land Information Ontario Data Review
- Protected Areas -



Coordinate System: NAD 1983 UTM Zone 16NTransverse Mercator

0 0.15 0.3 0.6 0.9 1.2 Kilometers

Legend

- Project Footprint
- Study Area - 500m Radius
- MNR Road Barriers
- Highway
- Local Road
- Utility Line
- OHN Waterbody
- OHN Watercourse

CLUPA Designation

- General Use Area

SCALE: 1:8,000
PROJECT: 181045

DATE: 4/20/2018

Data Provided by Land Information Ontario:
Data updated as of March 2018.

TULLOCH ENVIRONMENTAL

APPENDIX Y

Whip-poor-will General Habitat Description and Approved Survey Protocols

1.1 Authorizations

Species at Risk
Under some circumstances, surveys for threatened or endangered species in Ontario may require a permit under the ESA. For example:

- the collection of voucher specimens;
- capturing and handling an animal;
- repeated disturbance of an individual; and
- any activity that damages the habitat.

No permit is required for those using this protocol.

Federal authorizations may also be required under the *Species at Risk Act* or the *Migratory Birds Convention Act* if working on federal lands or if you are likely to contravene protection afforded under these Acts and their Regulations.

Work in Provincial or National Parks
A permit from Ontario Parks or Parks Canada Agency is required to carry out work in a provincial or national park, respectively, regardless of other authorizations that have been obtained. Applications to conduct research in Ontario provincial parks usually take up to two months for review and approval.

Landowner Authorization
Permission to carry out work on private property is required from the property owner prior to accessing the property, regardless of other authorizations that have been obtained. Surveys conducted from an adjacent property line for which access has been granted or from public property such as a public road do not require specific landowner permission.

2.0 SPECIES INFORMATION

2.1 Identification

During the breeding season, males give the primary advertising “whip-poor-will” call in the dusk, evening and early morning from calling perches which may be either elevated (e.g. in trees, on rock outcrops, fenceposts, etc.) or on the ground. It may also call during migration. During the day, males roost in trees or sometimes on the ground. The species’ cryptically-coloured plumage makes it very difficult to find when roosting. Foraging birds or birds flushed from a roost site exhibit an erratic, floppy, moth-like flight pattern.

The Common Nighthawk (*Chordeiles minor*) is similar in appearance to the Eastern Whip-poor-will and these two species may be observed foraging and calling at the same time. They have a transverse white bar near the tip of the wings, exhibit an erratic, stiff-winged flight, generally fly higher in the sky, vocalize with a nasal “pent” call and make a “booming” sound with their wings.

2.2 Seasonal Movements and Suggested Dates for Survey

The Eastern Whip-poor-will is a summer resident in Ontario before migrating to the southern United States and Central America in the fall. Here are some typical dates when it is found in Ontario:

Average Early Spring Arrival: 27 April (first 20% of arrivals; Burrell 2012)
Normal spring arrival: mid-May (first arrivals in early April; James 1991)
Breeding Season
Egg dates: 21 May to 21 July (Peck and James 1993)
End of Breeding: Mid August (estimated)
Fall departure: early October (James 1991)

Suggested best dates for Eastern Whip-poor-will surveys: May 18 – June 30*

*Survey dates may vary slightly by location so contact the local OMNR office for the best dates suitable in your area.

2.3 Distribution

The Eastern Whip-poor-will is widely distributed across central Ontario as well as parts of southern and northern Ontario (Figures 1 & 2). The range of the Eastern Whip-poor-will is not well known in northern Ontario since there was no requirement in the Atlas for crepuscular surveys.

2.4 Typical Habitat – Area to be Surveyed

The Eastern Whip-poor-will is primarily found in relatively open, coniferous, deciduous or mixed woodlands and in forest habitats, particularly along the edges of habitats where there is exposed rock, clearings, younger forest or wetlands. Typically occupied habitats may include sand barrens and forested dunes, regenerating burns, Precambrian rock barrens, limestone barrens (alvars), deciduous and mixed savannahs and woodlands, particularly those of dry upland oak, oak-pine, and coniferous woodlands. They may also occur in cutovers in regenerating harvest sites. Frequently these habitats will be part of a larger forested area. OMNR district staff may have additional information on locations in a district at which Eastern Whip-poor-will may be found.

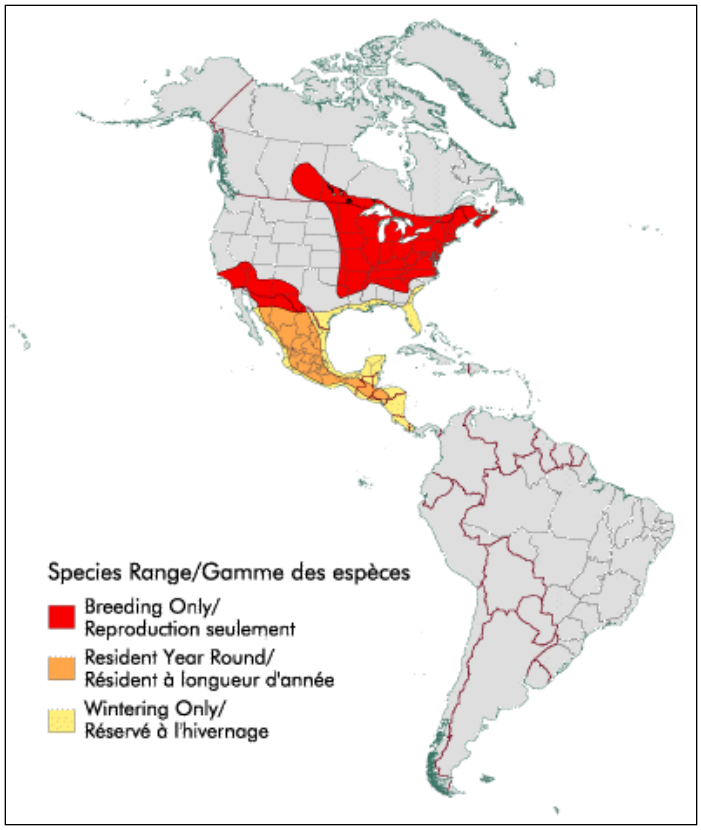
Note: This document provides guidance on where to look for species at risk, given their typical habitat preferences. This is not a description of general habitat as defined under the ESA.

3.0 SURVEY PROTOCOL

3.1 Technique

Calling Eastern Whip-poor-will can be heard for up to 500 m under good conditions and as far as 1 km under ideal conditions. This protocol relies on observers undertaking point counts at locations that they have established in advance. The point counts shall have a fixed radius of 300 m so that absolute numbers of birds can be counted. At each point count location, the calling male(s) are identified, and the direction and distance to each is estimated and plotted on a map. The direction of a calling male is recorded by taking a compass bearing. Distances to

calling birds are often difficult to determine and may be influenced by topography, the proximity to waterbodies, the maturity and density of the surrounding vegetation and relative humidity (e.g. heavy mist or fog).


Species Range/Gamme des espèces
Breeding Only/
Reproduction seulement
Resident Year Round/
Résident à longueur d'année
Wintering Only/
Réservé à l'hivernage

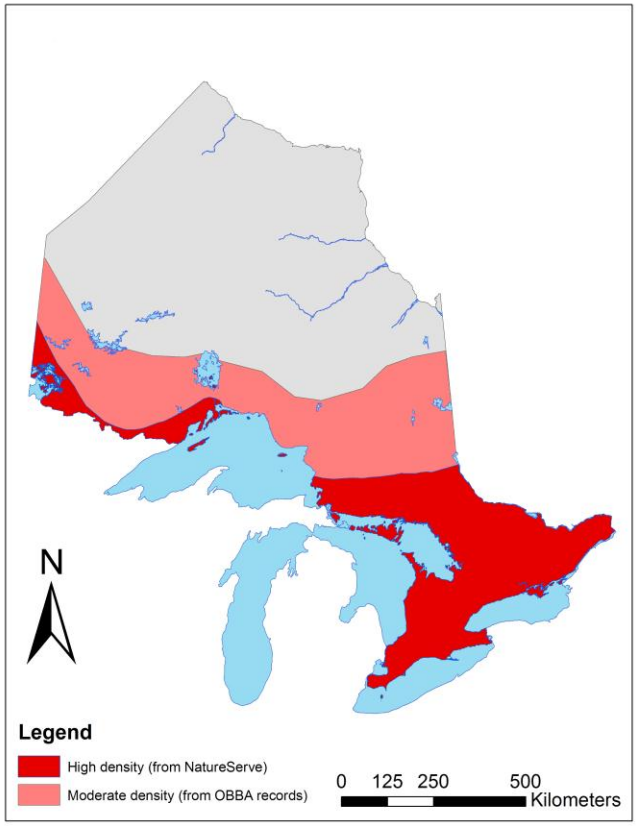

N
Legend
High density (from NatureServe)
Moderate density (from OBBA records)
0 125 250 500
Kilometers

Figure 1: Global range (left) and Ontario range (right) for Eastern Whip-poor-will
Sources: Project Wildspace (left), CWS, OMNR (right).

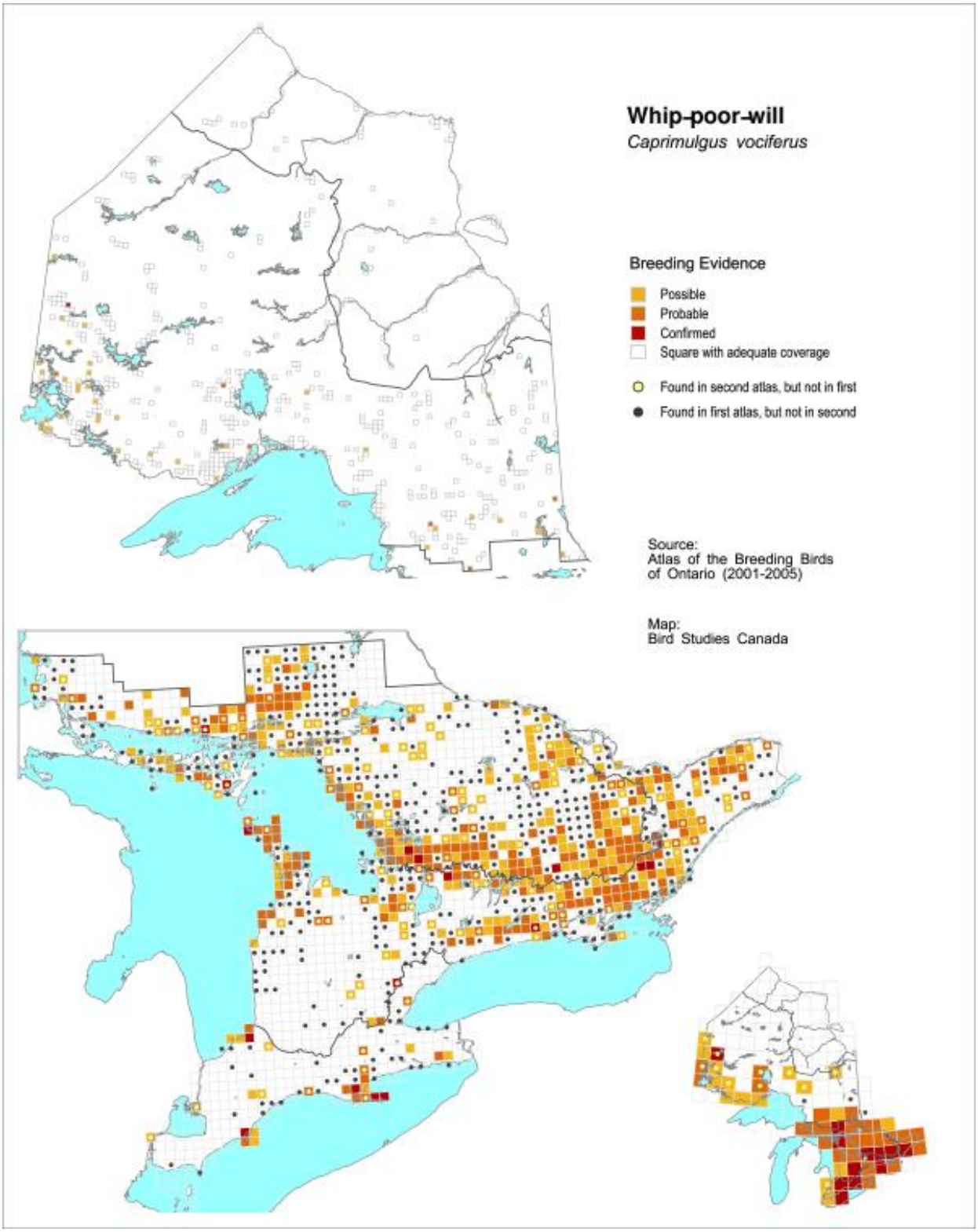


Figure 2: Breeding evidence for Eastern Whip-poor-will from the Ontario Breeding Bird Atlas, 2001-2005

Black dots indicate locations where the species was seen in the first Atlas, 1981-1985 but not in the second.

Triangulation should be used whenever possible to obtain the most accurate locations. The error associated with estimating direction increases with distance. Caution should be used if the landscape is rugged or if it is windy and the bird is far away as the sound may echo, distort or come from two directions.

Should methods used in surveys deviate significantly from what is described in this protocol, the information obtained may not be acceptable to the MNR.

3.2 Qualifications and Records Review

Surveys for Eastern Whip-poor-will should be carried out by biologists or observers with demonstrated experience with the species or who have appropriate field skills and are familiar with the habitat used by Eastern Whip-poor-will. Surveyors are expected to be knowledgeable about the species, its calls, and its behaviour based on information in Cink (2002), Mills (2007) or other sources. Surveyors will also need to be experienced in conducting field work in the evening or night, using a GPS unit to record tracks or find specific coordinates.

A records review should be carried out prior to field surveys. Existing occurrence records may help to better scope the field survey or, if extensive data are already available for a site, existing records may eliminate the need for a field survey. The absence of occurrence records from an area does not indicate that the species is absent; suitable habitat must be adequately surveyed before concluding that the species is absent.

The following sources can be consulted for general information on Eastern Whip-poor-will occurrence within Ontario:

- Natural Heritage Information Centre (NHIC)
  http://nhic.mnr.gov.on.ca/
- OMNR district offices
  http://www.mnr.gov.on.ca/en/ContactUs/2ColumnSubPage/STEL02_179002.html
- Ontario Reptile and Amphibian Atlas (ORAA)
  http://ontarionature.org/protect/species/herpetofaunal_atlas.php
- Status reports from the Committee on the Status of Endangered Wildlife in Canada (COSEWIC)
  http://www.sararegistry.gc.ca/default_e.cfm
- Other information sources such as, but not limited to species experts, site-related environmental impact or screening reports, published scientific literature and natural history inventories

3.3 Recommended equipment

Compass, GPS, map or aerial photo, pencil, notebook or datasheets, watch, headlamp, insect repellent; cell phone; **Optional:** hand-held radios (if two observers will be simultaneously conducting the survey), anemometer, flagging tape, camera.

3.4 Survey Period

The dates when this survey may be used are **May 18 – June 30**. If surveys outside these dates are required, please consult with biologists at the local OMNR office.

3.5 Conditions

Surveys must be conducted under field conditions with no precipitation, low noise levels, little or no wind (up to 3 on the Beaufort Scale [<12 kph]; Beaufort scale 3 = Leaves and small twigs constantly moving, light flags extended), clear skies and good visibility. Because moon phase is known to affect calling rates, the moon should be > 50% illuminated, and above the horizon (generally one week on either side of date of full moon). The sky should have little or no cloud cover. The temperature should be 10°C or above. Nights when the moon is visible under these conditions have significantly higher calling rates for Eastern Whip-poor-will. Information on moon phase and position relative to the horizon can be obtained at websites such as: http://www.timeanddate.com/

3.6 Pre-Survey

1) Examine aerial imagery or a map, and set up a survey route(s) along existing roads (when possible) or trails within or adjacent to the project area so that the route passes within 300 m of all typical habitat. In some cases, individual survey points may be positioned off a route to ensure coverage of an area. Routes may even be done on water if this is the more practical. Eastern Whip-poor-will can be heard for 300 m but may be heard up to 500 m under extremely good conditions.

2) Establish survey points along the route at 500 m intervals. Identify a 300 m radius circle around each point as the area to be surveyed. This area is equal to 28.3 ha. Aim to have one survey point for every 30 ha of typical habitat. Drive or walk the route during the day if unfamiliar with the area. Create waypoints on your GPS for the survey points.

3) When travelling the route during the day, visit the waypoints set as survey stations and note features immediately along the roadside which might be reference points at night such as bends in the road, creek crossings, large trees, forest edges or rock outcrops.

4) Two observers are recommended for the survey; one to listen and one to record. At specific survey points the two observers may split apart to triangulate locations of the same calling bird by simultaneously recording the direction and distance. Always take personal safety into account; this may support having more than two observers if you wish to triangulate locations of birds. Notify others about your trip plans.

3.7 Timing and Number of Surveys

Surveys should start thirty minutes after sunset when the moon is visible above the horizon and may continue as long as the moon is visible. If conditions are favourable, surveys may extend until as late as 15 minutes before sunrise. The hours immediately following dusk and preceding dawn are the best times for a survey; calling may be less frequent at other times.

A minimum of **three surveys** should be completed during the breeding season so that sufficient data is obtained to determine breeding status and interpret territories.

Ideally, two of the surveys should be completed in late May or the first week of June during a week preceding or just after a full moon, and a third survey in the next available full moon period which might be the middle/end of June. If it is necessary to conduct all three survey nights during one moon phase cycle, this should be confirmed with the OMNR. If a scheduled survey must be cancelled because of rain or clouds covering the moon, one survey but not more may be done in the period when the moon is <50% illuminated because some data will be obtained.

3.8 Conducting the Survey:

1) The surveyor shall drive or walk the predetermined route and stop at the established stops (i.e. GPS determined locations) to listen for Eastern Whip-poor-will for **5 minutes** at each stop. The observer shall get out of the vehicle at each stop.

2) If an Eastern Whip-poor-will is heard, take a compass bearing on the calling bird, record the time, GPS location and estimate the distance to the calling bird. On many GPS units, one can move the cursor on the screen to the estimated location of the calling bird and it can be marked as a waypoint. Estimating distances can be very difficult; it is likely that you will need to scale them to the nearest 50 or 100 m.

3) If two or more birds are heard calling simultaneously, note the directions and probable locations of each on a map as this is important for establishing that multiple territories may be present.

4) Where possible, two observers may work simultaneously from different spots on the route (or points) to triangulate the location of the same calling bird. The greatest accuracy is obtained when the two observers and the bird are equal distances apart (i.e. forming an equilateral triangle).

5) Stay at the point for five minutes to ensure all Eastern Whip-poor-will are noted. Record any changes in calling location that are noted and take new compass bearings and distances as necessary. If not done during a pre-survey reconnaissance, make notes on the general conditions of the area surrounding the listening stop (e.g. small clearing, rock outcrop, etc) in case the location needs to be located during the day.

6) As the observer moves to the next point on the route, he or she may take additional bearings or take note of calling bird(s) at intermediate locations if it will give better location data than at the next point. At each point, try to avoid double counting of birds by noting whether a bird is a new calling bird or one that was heard from a previous survey point. Note that birds may stop calling and may move to a new calling perch within their territory.

7) Continue to make 5 minute stops at the established points and record any calling birds as noted above until the survey is completed.

3.9 Repeat Visits

As mentioned above, surveys should be repeated a minimum of three times during the breeding season to ensure data is sufficient to confirm identify and delineate territories. Two of the three surveys may be conducted on successive nights. Some observers have found that doing their surveys in reverse order on subsequent visits allows the survey end points to be surveyed under ideal conditions at least once.

3.10 Alterations to survey protocol and important points

Stops will normally be set up every 500 m and listening periods set for 5 minutes to give the best results. If stops need to be set further apart than 500 m (e.g. surveying a very large area) or other changes from the protocol are required, contact the OMNR for advice.

The following actions should be avoided:

1) Playback should not be used on Eastern Whip-poor-will because it may move birds from their established calling perches and outside of their normally defended territory.

2) Nest searches should not be conducted unless instructed to do so by OMNR staff. Eggs are cryptically coloured and laid directly on the forest floor. They blend into the adjacent leaves, litter, or ground. Nests are very difficult to find and during searches the nests or sitting birds may be harmed. Incubating birds may not flush until observers are directly upon them.

3) Close approach of calling birds should be avoided unless instructed to do so by OMNR staff.

4.0 DOCUMENTATION AND REPORTING

4.1 Documentation

Survey: Documentation should include observers' names, the date, weather conditions including temperature and cloud cover, wind speed, time of surveys and visibility of the moon for each survey stop.

Breeding Evidence: Information collected on surveys should be compiled and analyzed by transcribing the data to a map for each survey. You should also make a master map showing all calling bird locations from all surveys. The master map should show locations of birds in the following situations: single calling birds on one night only, territory registered by a calling male in the same area on at least two surveys, two males singing simultaneously (indicates a territory boundary between them), and the movement of calling males to new calling locations (indicates two calling locations in a territory).

Birds heard calling on two or more surveys from the same general location would provide probable breeding evidence to demonstrate that a territory is found in a particular area. Single calling birds heard on only one survey out of three at a location indicate a bird is present but do not demonstrate use.

Territories: Use the maps of calling birds with the breeding evidence (e.g. calling on multiple nights) to create maps of territories. Once several birds have been mapped on different nights, it is possible to draw polygons around sets of calling locations to create defended territories. While the breeding bird atlas requires surveys to be done 7 days apart to register a territory, this protocol allows surveys done on consecutive nights to be used to map territories. Territories in Ontario are approximately 9 ha.

4.2 Reporting

Species at risk occurrence data should be reported to the Ontario Ministry of Natural Resources and Forestry's Natural Heritage Information Centre (NHIC): http://nhic.mnr.gov.on.ca. The NHIC is Ontario's conservation data centre and maintains the provincial record of Ontario's species at risk occurrences. Negative survey results should also be submitted to the NHIC. Data should be submitted in digital format (spreadsheet or shape files with associated tabular data) as per instructions on the NHIC website. The local OMNR or Ontario Parks office should also be provided with a copy of the data (but please indicate if it has already been submitted to NHIC).

Canadian Nightjar Survey Protocol
DRAFT – April 2016

This draft version of the Canadian Nightjar Survey Protocol is a product of a series of working group meetings held from November 2015 – April 2016.

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BIRD STUDIES CANADA
ÉTUDES D'OISEAUX

Environment and Climate Change Canada
Environnement et Changement climatique Canada

This draft was prepared by Elly Knight, with edits from Kevin Hannah, Mark Brigham, Jon McCracken, Gilles Falardeau, Marie-France Julien, and Jean-Sébastien Guénette.

Photo credits: Anne C. Brigham (Common Nighthawk); Alan Burger (Common Poorwill); Nicholas Bertrand (Eastern Whip-poor-will).

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TABLE OF CONTENTS

1. INTRODUCTION

Thank you for contributing to nightjar monitoring in Canada! Prior to surveying, please read this protocol in its entirety and familiarize yourself with the identification of nightjar species that may be found in your area. A one-page summary of the protocol can be found in Appendix A and used as quick reference in the field.

Conducting a Nightjar Survey is easy – anyone with good hearing and a vehicle can participate!

- Each route is a series of 12 road-side stops
- Each route needs to be surveyed once per year between June 15 and July 15
- Survey the route once starting at 30 minutes before sunset
- At each stop, you will listen quietly for nightjars for six minutes and record information about your survey

2. OBJECTIVES

The data you are helping to collect will be used to expand our understanding of Common Nighthawks, Common Poorwills, and Eastern Whip-poor-wills across the country. Due to their nocturnal habits, nightjars are understudied, but there is concern about their declining populations. Common Nighthawks and Eastern Whip-poor-wills are listed as Threatened under the federal *Species at Risk Act*. Common Poorwills were assessed as Data Deficient by the Committee on the Status of Endangered Species in Canada (COSEWIC) in 1993. Information on nightjar distribution, abundance, habitat associations, and population trends is critical for conservation and management efforts.

To increase our understanding of nightjar species in Canada, the Canadian Nightjar Survey Protocol is designed with four objectives in mind:

1. **Habitat associations and critical habitat mapping**: roadside citizen science data will cover a large geographic expanse and can be integrated with more locally-collected, non-roadside data to characterize nightjar habitat.
2. **Long-term population monitoring:** data collected will be compared to Breeding Bird Survey data after several years of data collection to determine whether the protocol increases the precision of population trend estimates.
3. **Distribution and abundance mapping**: data collected will help refine our understanding of the distribution and abundance of nightjars across Canada.
4. **Environmental assessment**: survey data could be used to inform environmental assessments by providing a baseline against which we can evaluate the potential impacts of development to nightjar species and their habitat

3. NIGHTJAR BIOLOGY & IDENTIFICATION

Nightjars are a family of cryptic birds that forage for flying insects at night. These beautiful birds have long, pointed wings for flight, and are highly camouflaged against the leaves and branches they roost upon during the day. Many of these species are highly migratory, spending their winters as far south as Argentina. During the summer, nightjars breed across Canada, generally laying two eggs directly on the ground with no nest.

Due to their nocturnal behaviour and cryptic appearance, nightjars are rarely seen, so it is most important to learn how to identify nightjars by sound!

3.1. Common Nighthawk (*Chordeiles minor*)

3.1.1. Biology

Common Nighthawks are found almost everywhere in Canada, except Newfoundland and the far north. These birds are one of last birds to arrive from migration, showing up across the country in late May and early June. Common Nighthawks are generally found in open-area habitat such as grasslands, clearcuts, sandy areas, peatlands, rocky bluffs, open forests, and even urban areas. Nighthawks use large areas of space – males are thought to defend territories for mating and nesting, but forage and roost outside those territories up to several kilometres away. Common Nighthawks are listed as Threatened due to steep population declines based on existing Breeding Bird Survey data.

3.1.2. Identification

Common Nighthawks are most likely to be seen during surveys because these bird are more crepuscular than other nightjar species, meaning they are most active at dawn and dusk. Common Nighthawks become active approximately 30 minutes before sunset, and remain active until 60 or 90 minutes after sunset. Nighthawks forage for insect prey during sustained-flight , much like swallows and swifts. Their bright white wing bars are a tell-tale way to identify this species in flight.

Common Nighthawks can be identified by two different sounds. The first is a vocal “peent” or “beerb” call that is frequently made while the birds are in flight. The second is mechanical wing-boom, made by wind rushing through the down-curved wing tips of the male at the bottom of a steep vertical dive. Wing-booms are thought to be for territorial defense and mate attraction, much like the songs of male songbirds.

3.2. Common Poorwill (*Phalaenoptilus nuttallii*)

3.2.1. Biology

Common Poorwills are found in the southern-most areas of central British Columbia, eastern Alberta, and western Saskatchewan. These birds arrive in Canada in late April to early May to breed in semi-arid open habitats such as rocky bunchgrass hillsides and open forests. Common Poorwill population trends in Canada are unknown. The species was assessed as Data Deficient by the Committee on the Status of Endangered Species in Canada (COSEWIC) in 1993 due to insufficient data. Common Poorwills are physiologically noteworthy in that they are one of the only bird species that can enter torpor (i.e., hibernation) for weeks at a time to conserve energy!

3.2.2. Identification

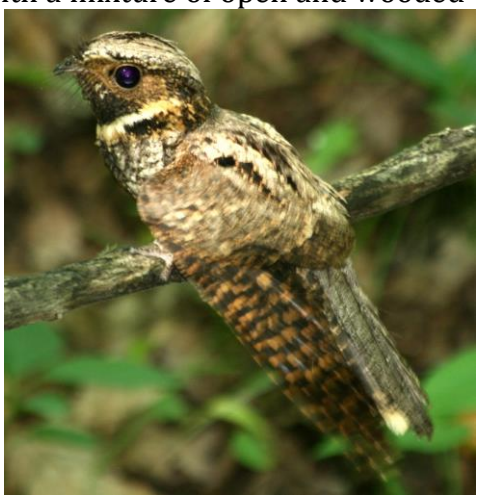

Alan Burger

Common Poorwills are rarely seen because they are truly nocturnal and remain on the ground or perched, taking flight only to sally up and catch insects from the air. True to its name, the Common Poorwill is most readily detected by its "poor-will" call. Common Poorwills begin calling about 30 minutes after sunset, and are most vocal during clear nights when the moon is at least half full.

3.3. Eastern Whip-poor-will (*Caprimulgus vociferus*)

3.3.1. Biology

Eastern Whip-poor-wills are found from east-central Saskatchewan to Nova Scotia, with the majority of the population likely occurring in Ontario and Quebec. Eastern Whip-poor-wills arrive in Canada in early to mid May, and occupy areas with a mixture of open and wooded areas. They forage in open areas and use wooded areas for perching and nesting. Eastern Whip-poor-wills are listed as Threatened also due to steep population declines.



3.3.2. Identification

Eastern Whip-poor-wills are also rarely seen, but the species is distinguished by a white ring around the base of the neck and white spots on the outer tail feathers. Eastern Whip-poor-wills are most vocal during clear nights in June when the moon is at least half full, and can repeat their characteristic "whip-poor-will" call up to

100 times without stopping! They begin calling about 30 minutes after sunset, and call for about 90 minutes each night.

3.4. Other Species of Interest

Other nocturnal and crepuscular species of conservation interest that it may be useful to document, and that you might want to learn include:

- Owls
- Yellow Rail
- American Woodcock
- Chimney Swift

3.5. Identification Resources

To practice your nightjar and nocturnal bird species identification, we recommend the following resources:

3.5.1. Online – Before You Survey

- Dendroica: an interactive website designed to help learn bird identification. Listen to recordings and look at photos of potential species.
- Xeno-canto: an online database of recordings of birds from volunteers across the world.
    - Common Nighthawk (make sure to listen to some recordings with wing-booms)
    - Common Poorwill
    - Eastern Whip-poor-will
- The Cornell Lab of Ornithology's Macaulay Library is the world's largest collection of wildlife sounds and videos.

3.5.2. Apps – While You Survey

- iBird (nightjars are in the Pro, Canada, Ultimate, and Plus editions)
- Audubon Birds of North America (now free!)
- The Sibley eGuide to Birds

4. SURVEY OVERVIEW

4.1. Route

The Canadian Nightjar Survey Protocol uses unlimited radius point counts along permanent road-side survey routes so that survey data can be compared between years. The route framework is made up of permanent routes from several sources:

- Breeding Bird Survey routes (every second stop of first 23 stops)
- Routes in target habitat for Common Poorwills or Eastern Whip-poor-wills
- Existing routes from previously-established survey programs

To maintain volunteer interest, routes with no nightjars detected for two consecutive years will be removed from the pool of available routes and put back in the pool of available routes after five years of not being surveyed.

Please contact your Regional Coordinator if there are no nightjar survey routes available near your area. New routes will be designed by Breeding Bird Survey staff unless in an area where road length is insufficient to fit a full-length Breeding Bird Survey route or if a route is designed to target specific habitat.

4.2. Stops

Each route consists of **12 survey stops each spaced at least 1.6 km apart** (there are some routes that have 10 or 11 stops if there is not enough space for 12). The starting point of your route will be named Stop 1. Subsequent stops are sequentially numbered (i.e. 2, 3, 4 etc.). **It is critical that surveys be conducted at these same stops each year** so that data can be compared between years. Volunteers will be provided with a route map and the coordinates of their survey stops to ensure the same stop locations are surveyed each year.

4.2.1. New Routes

Some routes may never have been surveyed before, in which case the location of the stops is at your discretion, and will require extra scouting time. You will be provided with a map of your route including satellite imagery, and **you will be required to collect information on stop location** (see Section 5.4). Please choose your stop locations with the following in mind:

- Stops should ideally be 1.6 km apart. Use your car odometer to measure distance.
- If your survey route road has curves, try to place stops 1.6 km apart **straight-line distance.** Using a GPS will help determine straight-line distance.
- Your safety is of first priority during nightjar surveys, so please ensure that your stops include a safe place to pull over and park.
- Avoid stop locations with excessive noise (e.g. located beside running water, barking dogs, etc.)
- It is better to add distance between stops rather than placing stops less than 1.6 km apart so that you avoid counting the same birds twice.
- Not all of your stopping points need to be on the same road. Turning onto different roads may be necessary to find a safe place to park.
- We recommend scouting your route during daylight to become familiar with the stops.

4.3. Survey

At each survey stop, count all nightjars seen or heard for a period of **SIX minutes**. Counting birds and recording data should be done from a stationary position outside of your vehicle. Record birds as you hear them, rather than waiting for the end of the six-minute period to avoid data omission errors. Most importantly, be consistent. Use the same technique at each stop including how you focus your listening between nearby and distant birds. To ensure data are comparable between surveys by different volunteers, please:

- **DO NOT** use whistles, audio calls, or any method that coaxes birds to call or come closer
- **DO NOT** use a flashlight to search for reflections of bird eyes

See Section 5.3 for further details on how to record your nightjar observations.

4.4. Date

Surveys must be conducted during the nightjar breeding season between **June 15 and July 15**. **Each route needs to be surveyed once per year.**

If there is the potential for Common Poorwills or Eastern Whip-poor-wills in your area, survey within one week of the full moon (June 15 to June 27, 2016).

Excessive wind and rain will diminish the quality of surveys. **Do not complete surveys when wind speeds are Beaufort level 3 or greater, or if there is any precipitation.**. If you begin a survey route and conditions deteriorate for more than 3 survey stops, we advise you to abort the survey and attempt it on another night with better conditions.

4.5. Time

Surveys **begin 30 minutes before sunset**, the time when nightjars are most active. Only one route may be surveyed per night due to these timing requirements. Sunset is considered the beginning of official civil twilight for your survey route area and can be looked up online at:

http://www.nrc-cnrc.gc.ca/eng/services/sunrise/advanced.html.

To cover both the 6-minute nightjar survey and driving to your next survey stop, each stop will require about ten minutes to complete. The entire route will require a total time of approximately two hours.

5. DATA COLLECTION

A datasheet for data entry is available in Appendix B. Fill in each section of the datasheet according to the instructions in this section.

5.1. Survey Info

Fill in the route name, date, start time, and end time of the survey. Describe the general location and condition of the route including road condition and any safety concerns. Record the temperature at the beginning and end of your survey. Submit your name, mailing address, phone number, and email address for our records.

5.2. Stop Conditions

For each stop surveyed, **record the time the survey began**. We also ask that you record data on the conditions at each stop because factors such as wind and moon visibility can affect your chances of detecting a nightjar.

5.2.1. **Wind**

Record the wind speed using the Beaufort scale below. Do not conduct surveys during winds ≥ 3.

Code	Wind Speed	Description
0	< 1 km/h	Calm- Smoke rises vertically.
1	1-5 km/h	Light air - Smoke drifts, leaves and wind vanes are stationary.
2	6-11 km/h	Light breeze – Wind felt on exposed skin, leaves rustle, wind vanes begin to move.
3	12-19 km/h	Gentle breeze - Leaves and small twigs constantly moving.

5.2.2. Cloud Cover

Rate the amount of cloud cover in the sky at the time of your survey using the following codes:

Code	Sky	Description
0	0% cover	Clear, cloudless sky; can see stars and moon clearly.
1	< 25% cover	Mostly clear, with scattered clouds.
2	25-50% cover	Up to half the sky covered with clouds.
3	50-90% cover	Dense cloud cover, but some patches visible.
4	> 90% cover	Entire sky clouded over.

5.2.3. Moon

Enter "Y" for yes or "N" for no to indicate if the moon can be seen while surveying. This is particularly important to record in deep valleys where the moon is often obstructed by the surrounding hills or mountain ridges.

5.2.4. Noise

Record the level of background noise at each stop using the following codes:

Code	Noise	Description
0	None	No effect of background noise on your ability to hear nightjars.
1	Slight	Noise slightly affects your ability to hear nightjars (e.g. distant traffic, dogs barking)
2	Medium	Noise moderately affects your ability to hear nightjars (e.g. airplane, moderate traffic).
3	Excessive	Noise seriously affects your ability to hear nightjars (e.g. continuous traffic nearby, construction noise, frog chorus).

5.2.5. Cars

Count the number of cars that pass on the road during your survey.

5.3. Nightjar Detections

5.3.1. Nightjars

Each line on the data sheet represents an individual bird's detection history (see example on next page). Use a new line for each new bird detected at a stop. Do not record any nightjar detection data if no nightjars or owls were heard at any given stop. If you cannot

accurately count the number of individuals by sight or by concurrent calls, make a note in the "comments" column of your data sheet. Use the following nightjar codes:

- CONI = Common Nighthawk
- COPO = Common Poorwill
- EWPW = Eastern Whip-poor-will

5.3.2. Detection Type

The survey period is broken into **6 one-minute intervals** on the data sheet. **For each bird heard or seen during each one-minute interval, indicate the highest ranked type.**

1. **Wing-boom (W):** If the bird performed a territorial wing-boom in that one-minute interval (Common Nighthawks only).
2. **Call (C):** If you heard the bird call during that one-minute interval.
3. **Visual (V):** If you saw the bird, but did not hear it during that one-minute interval.
4. **Not detected (N):** If you did not detect the bird during that one-minute interval.

Sample data entry: The observer initially detected one Common Nighthawk calling during the first three minutes of survey at Stop 1, and performing wing-booms in minute 3. The observer then detected a second Common Nighthawk calling at Stop 1 during the third minute and fourth minute of the survey, so began a new row on the data sheet for this bird. This observer used the best judgment in deciding these were two individual Common Nighthawks, and not the same bird that moved after initial detection. At stop 2, the observer did not detect any birds until the survey ended, so they did not record any data. At Stop 3, the observer detected one Common Nighthawk calling and performing several wing-booms per minute for the entire six minutes several hundred metres to the northeast. A Common Poorwill was also heard calling in minutes 2-4 less than 100 metres to the south. At Stop 4, the observer saw two Common Nighthawks fly over in minute 2, one of which made a "peent".

Stop (1-12)	Species	Time Interval						Distance (circle)	Cardinal Direction
		1	2	3	4	5	6		
1	CONI	C	C	W	N	N	N	< 100 m > 100 m	
1	CONI	N	N	C	C	N	N	< 100 m > 100 m	
3	CONI	W	W	W	W	W	W	< 100 m (> 100 m)	NE
3	COPO	N	C	C	C	C	N	(< 100 m) > 100 m	S
4	CONI	N	C	N	N	N	N	< 100 m > 100 m	
4	CONI	N	V	N	N	N	N	< 100 m > 100 m	

5.3.3. Distance and Direction

Recording the location of particular observations may help us learn more about the specifics of nightjar habitat requirements. Please estimate the distance and direction to your first detection of:

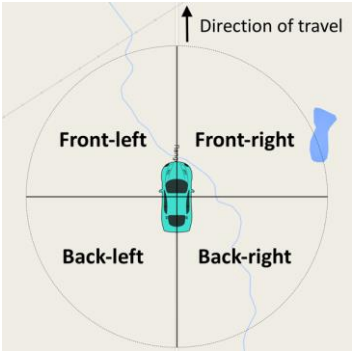
- Common Poorwills
- Eastern Whip-poor-wills
- Common Nighthawks performing repeated wing-booming in the same location (≥ 3 wing-booms).

You do not need to estimate distance and direction for Common Nighthawks that are not performing repeated wing-booming.

Estimate distance as one of the following:

- near (< 100 m)
- far (> 100 m)

Estimate direction using cardinal direction (i.e., north, east, south, west). If you are unsure of cardinal direction, you may describe direction relative to your vehicle and the road:



5.4. Stop Locations

This section of the datasheet should **only be filled out if your route has never been surveyed before or if you wish to recommend a stop location amendment.**

Stop coordinates must be recorded and submitted for routes to be surveyed at the same stops in subsequent years. Ideally, location coordinates should be submitted as latitude and longitude in **decimal degrees** (NOT degrees minutes seconds) to six digits (e.g., 49.884128 N, 119.496301 W). There are several ways to obtain the coordinates for your new stop locations:

1. Use a handheld GPS and take waypoints at each of your stops.
2. There are many excellent GPS apps available for smartphones. If you have an iPhone, Android, or BlackBerry, you can turn it into a handheld GPS. Here are a few app options:
   - MotionX-GPS for iPhone ($1.99)
   - Free GPS for iPhone (Free)
   - GPS Test for Android (Free)
   - GPS Maps Location Finder for BlackBerry (Free)
3. Locate coordinates after survey completion in Google Earth. If you choose this option, we recommend marking stops on a printed map as you survey and using your car's odometer to keep track of how far apart your stops are.

6. EQUIPMENT

6.1. Essential

- Vehicle
- Protocol
- Datasheets (blank)
- Flashlight (ideally headlamp type)
- Watch or other device with a timer (e.g., phone)
- Several pencils/pens

6.2. Recommended

- An assistant/driver
- Map of route and stops
- GPS and/or phone with GPS app
- Thermometer for recording temperature at the beginning and end of your survey
- Road map for getting to your route
- Compass (for determining cardinal direction to birds)
- Clipboard
- Spare batteries (for flashlight or GPS)
- Insect repellent and/or mosquito-repellent clothing
- Safety vest or other reflective clothing.

7. SAFETY

Your safety is most important, so please ensure that you are conscious of your safety when conducting a survey. Please take the follow points into consideration:

- Consider conducting surveys in a team of two
- If surveying alone, make sure someone knows where your survey route is and what time you will return
- Park your vehicle well off the road during survey stops
- Stand off the road surface when conducting surveys
- Leave parking lights on throughout the duration of a count
- Wear a reflective vest or use a headlamp so that other drivers are aware of your location
- Conduct the survey near the road to avoid trespassing on private property
- Check your clothing and skin for ticks when you get home to prevent the transmission of Lyme disease and other tick-borne illnesses

8. WILDRESEARCH LIABILITY

We encourage all WildResearch Nightjar Survey volunteers to become annual WildResearch members in order to ensure full liability coverage and help us cover the costs of running the program. Learn more about membership and join us here.

For volunteers that do not wish to become annual WildResearch members, please complete a Day Membership form online through Better Impact (http://bttr.im/v06kg) to ensure you are covered under liability insurance during your survey.

1. Pick the dates you plan on completing your survey. Make sure you choose at least one back-up date in case of bad weather. The online form allows you to choose up to 10 dates; please email nightajrs@wildresearch.ca if you require more than 10 dates. Please keep in mind that WildResearch incurs a financial cost for each date.

2. Sign-in to Better Impact here. First-time users will need to create an account using your email address.
3. Fill in the Day Membership form with your selected survey dates.

9. WILDRESEARCH DATA SUBMISSION

Enter your data using your account on the WildResearch Nightjar Atlas!

1. Login using your username and password
2. Go to "Enter My Survey Data"
3. Enter your Survey Info and submit
4. Click on Stop 1 to enter your Stop Conditions data for Stop 1 and submit
5. Enter any nightjar observations for Stop 1
6. Repeat steps 4 and 5 for each subsequent stop.

If you are unable to enter your data online, you can also submit your data using one of the following options:

- Scan/photograph your data sheets and email to nightjars@wildresearch.ca.
- Mail your data sheets to:

WildResearch Nightjar Survey
c/o Elly Knight
9624 77 Ave NW
Edmonton, Alberta T6C 0M5

APPENDIX A: QUICK-REFERENCE PROTOCOL SUMMARY

Quick-Reference Protocol Summary

The Protocol Summary is intended as a quick reference for in the field. Please use the summary once you have read and are familiar with the full survey protocol.

Survey: Listen quietly for a period of six minutes.

Route: Each route consists of 10 to 12 survey stops spaced at least 1.6 km apart and numbered consecutively.

Date: Survey once between June 15 and July 15. Survey between June 15 and June 27 if you may have Common Poorwills or Eastern Whip-poor-wills in your area. Do not survey when winds are Beaufort level 3 or greater, or rain is stronger than a light drizzle.

Time: Begin at 30 minutes before sunset (civil twilight for your area). It will take about 10 mins to survey one stop and travel to the next, for a total survey time of 2 hours.

Data collection – Stop Conditions: At each survey, record the time your survey began, wind strength, cloud cover, whether the moon is visible, the level of background noise, and the number of cars that pass.

Data collection – Nightjar Detections: Each line on the data sheet represents an individual bird's detection history.

- You do not need to fill this in if you did not detect any nightjars at your stop.
- The survey period is broken into six one-minute intervals on the data sheet.
- For each bird detected in each one-minute interval, record the code for the highest ranked detection type you observed:
    1. W (Wing-boom; Common Nighthawks only)
    2. C (Call)
    3. V (Visual)
    4. N (Not detected)
- Record the distance (< 100 m or > 100 m) and direction to your first detection of
    - Common Poorwills
    - Eastern Whip-poor-wills
    - Repeat wing-booms of Common Nighthawk(i.e., ≥ 3 wing-booms in the same location)

Data collection – Stop Locations: Record stop coordinates as latitude and longitude in decimal degrees if your route has no pre-established stop locations or if you wish to suggest an amendment to your route.

Essential Equipment Checklist:

- Data sheets
- Survey protocol
- Route map
- Flashlight
- Stopwatch/timer
- Pens/pencils
- GPS or map of route to mark new stops on (new routes only)
- Location of stops (previously surveyed routes only)

APPENDIX B: CANADIAN NIGHTJAR SURVEY DATASHEET

1. SURVEY INFO: Fill this out before you start. Don't forget to fill in "End Temperature" when you're done your survey!

Observer Name:	**Co-Observer Name:**	
Address:	**Email:**	**Phone:**
Route Name:	**Date:**	

Comments: _____

2. STOP CONDITIONS: Record the conditions at each survey stop.

Start Temperature: _____

Stop	Start Time (24 hr)	Wind (circle)	Cloud (circle)	Moon (circle)	Noise (circle)	# Cars	Comments
1		0 1 2 3	0 1 2 3 4	Y N	0 1 2 3		
2		0 1 2 3	0 1 2 3 4	Y N	0 1 2 3		
3		0 1 2 3	0 1 2 3 4	Y N	0 1 2 3		
4		0 1 2 3	0 1 2 3 4	Y N	0 1 2 3		
5		0 1 2 3	0 1 2 3 4	Y N	0 1 2 3		
6		0 1 2 3	0 1 2 3 4	Y N	0 1 2 3		
7		0 1 2 3	0 1 2 3 4	Y N	0 1 2 3		
8		0 1 2 3	0 1 2 3 4	Y N	0 1 2 3		
9		0 1 2 3	0 1 2 3 4	Y N	0 1 2 3		
10		0 1 2 3	0 1 2 3 4	Y N	0 1 2 3		
11		0 1 2 3	0 1 2 3 4	Y N	0 1 2 3		
12		0 1 2 3	0 1 2 3 4	Y N	0 1 2 3		

End Temperature: _____

Code	Wind Description	Cloud Description	Noise Description
0	Calm- Smoke rises vertically	No clouds	None
1	Light air - Smoke drifts, leaves and wind vanes are stopped	< 25% cover	Slight (e.g., distant traffic)
2	Light breeze – Wind felt on exposed skin, leaves rustle, wind vanes begin to move	25-50% cover	Moderate (e.g., airplane, moderate traffic)
3	Gentle breeze - Leaves and small twigs constantly moving, light flags extended	50-90% cover	Excessive (e.g., construction, frog chorus)
4	Do not survey	> 90% cover	N/A

3. NIGHTJAR OBSERVATIONS: At each stop, listen for 6 minutes and fill out one line for each individual heard. Record the code for the highest ranked detection type you observed in each one-minute time interval: 1. W (Wing-boom), 2. C (Call), 3. V (Visual), 4. N (Not detected). Only record distance and direction for COPO, EWPW, and repeat wing-booming CONI.

Stop (1-12)	Species	Time Interval						Distance (circle)	Cardinal Direction	Comments
		1	2	3	4	5	6			
								< 100 m > 100 m		
								< 100 m > 100 m		
								< 100 m > 100 m		
								< 100 m > 100 m		
								< 100 m > 100 m		
								< 100 m > 100 m		
								< 100 m > 100 m		
								< 100 m > 100 m		
								< 100 m > 100 m		
								< 100 m > 100 m		
								< 100 m > 100 m		
								< 100 m > 100 m		
								< 100 m > 100 m		

3. NIGHTJAR OBSERVATIONS: At each stop, listen for 6 minutes and fill out one line for each individual heard. Record the code for the top-ranked detection type you observed in each one-minute time interval: 1. W (Wing-boom), 2. C (Call), 3. V (Visual), 4. N (Not detected). Only record distance and direction for COPO, EWPW, and repeat wing-booming CONI.

Stop (1-12)	Species	Time Interval						Distance (circle)	Cardinal Direction	Comments
		1	2	3	4	5	6			
								< 100 m > 100 m		
								< 100 m > 100 m		
								< 100 m > 100 m		
								< 100 m > 100 m		
								< 100 m > 100 m		
								< 100 m > 100 m		
								< 100 m > 100 m		
								< 100 m > 100 m		
								< 100 m > 100 m		
								< 100 m > 100 m		
								< 100 m > 100 m		
								< 100 m > 100 m		
								< 100 m > 100 m		

4. STOP LOCATIONS: This section of the datasheet should **only be filled out if your route has never been surveyed before or if you wish to recommend a stop location amendment.**

Stop	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Comments
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

General Habitat Description for the Eastern Whip-poor-will (*Caprimulgus vociferous*)

A general habitat description is a technical document that provides greater clarity on the area of habitat protected for a species based on the general habitat definition found in the Endangered Species Act, 2007. General habitat protection does not include an area where the species formerly occurred or has the potential to be reintroduced unless existing members of the species depend on that area to carry out their life processes. A general habitat description also indicates how the species' habitat has been categorized, as per the policy "Categorizing and Protecting Habitat Under the Endangered Species Act", and is based on the best scientific information available.

HABITAT CATEGORIZATION

1	Nest and the area within 20 m of the nest
2	The area between 20 m and 170 m from the nest or centre of approximated defended territory
3	The area of suitable habitat between 170 m and 500 m of the nest or centre of approximated defended territory

Category 1

Whip-poor-will nests and the area immediately around the nest (i.e., 20 m) are highly sensitive features supporting the species' reproduction life cycle and have the lowest tolerance to alteration. These are areas the species depends on for egg laying, incubation, feeding, resting and rearing of young. Whip-poor-wills do not construct a traditional nest as eggs are laid directly on leaf litter (Peck and James 1983). Nests require tree cover, shade, sparse ground cover, and proximity to open areas for foraging on flying insects (Eastman 1991, Reese 1996, Wilson and Watts 2008). These features are important to nesting site suitability. A 20 m distance from the nest is important to maintain the microclimate and vegetation features around the nest. Whip-poor-wills exhibit nest site fidelity (Cink 2002).

It is important to note that Whip-poor-will nests are rarely identified, due to their cryptic nature. It is inadvisable to search for Whip-poor-will nests as this may inadvertently jeopardize the nesting site and/or offspring. However, if a nest is identified, it and the area within 20 m shall be categorized as Category 1.

Category 2

The area between 20 m and 170 m of the nest or centre of approximated defended territory is included in Category 2 and is considered to have a moderate level of tolerance to alteration. This area includes the species' defended territory and is depended upon for nesting, rearing young, feeding, and resting. Territories have been found to range between 3 – 11 ha, averaging 4 – 5 ha (Fitch 1958, Hunt 2009). However, recent research in Ontario has shown that defended Whip-poor-will territories are approximately 9 ha in size, (i.e., approximately 170 m from the nest or centre of approximated defended territory) (English, pers. comm. 2011).

Suitable breeding habitats generally include open and half treed areas and often exhibit a scattered distribution of treed and open space. Structure is known to be an important factor in habitat selection (Garlapow 2007, Wilson and Watt 2008, Hunt 2009). Perching and roosting sites are important features found within this area. During the day, adults will lay motionless on a roost site (or nest) and become active only at dusk (Cink 2002). Perches have been reported to be used repeatedly, night after night (Cink 2002). Roosts are typically located in forest habitat on a low branch or directly on the ground (Mills 2007).

This area can also support additional nesting opportunities. Double brooding is common for this species, with a 32-day average interval between clutches (Cink 2002). Different nest sites are generally used for the second brood but are usually within 80 m of the first site (Cink 2002).

Category 3

The area of suitable habitat between 170 m and 500 m of the nest site or centre of approximated defended territory is included in Category 3 and is considered to have a high level of tolerance to alteration. This area supports various life processes, primarily feeding. Whip-poor-wills forage only at dawn or dusk but can forage all night during moonlit nights. Whip-poor-wills are seldom found greater than 500 m from nest sites based on unpublished field data collected in Kansas over 10 summers, from a study of 20 pairs (Cink pers. comm. 2012). Whip-poor-wills that range greater than 500 m from nest sites are likely females that have abandoned the territory due to loss of a mate (Cink, pers. comm. 2012). The area between 170 m and 500 m from a nest site may incorporate larger forest tracts that support additional foraging opportunities.

Activities in Eastern Whip-poor-will habitat

Activities in general habitat can continue as long as the *function of these areas for the species is maintained and individuals of the species are not killed, harmed, or harassed.*

Generally compatible:

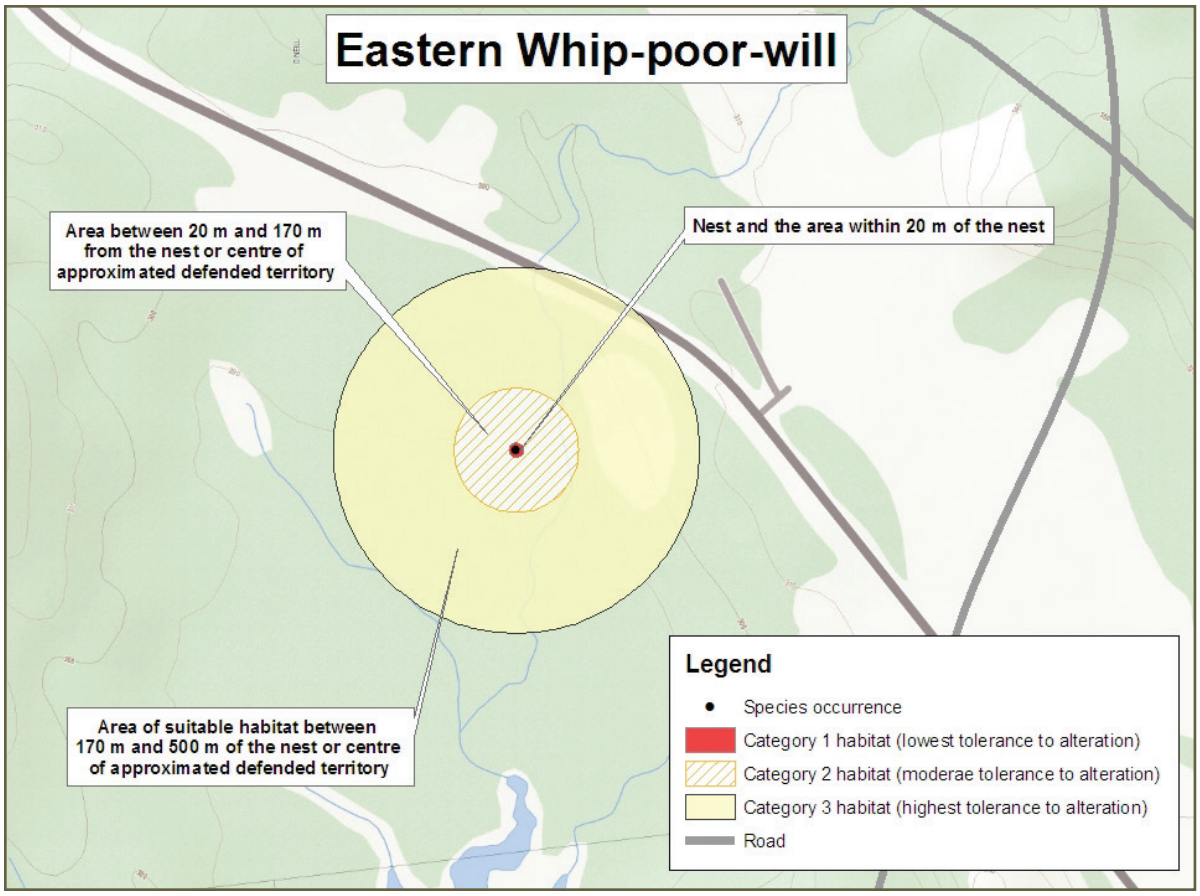
- Hiking and non-motorized vehicle use of existing recreational trails.
- Normal use of existing roadways including access roads.
- Small-scale selective removal of individual trees.

Generally not compatible:*

- Large scale development or other activities that result in significant alteration or clearing of vegetation.
- Indiscriminate application of pesticides within habitat.

* If you are considering an activity that may not be compatible with general habitat, please contact your local MNR office for more information.

Sample application of the general habitat protection for Eastern Whip-poor-will



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Proposed Marathon Transformer Station Expansion
Hydro One Responses to Garden River First Nation's Draft ESR Review Comments
July 16, 2018

Garden River First Nation (GRFN) retained TULLOCH Engineering Inc. (TULLOCH) to conduct a desktop review of the draft Environmental Study Report (ESR) for the proposed Marathon Transformer Station (TS), located in the Town of Marathon, Ontario.

The formal review letter issued by TULLOCH on behalf of GRFN is attached.

The draft ESR is also available on the project website
https://www.hydroone.com/about/corporate-information/major-projects/marathon

The table below lists the comments/concerns raised and Hydro One's responses.

	Comment/Concern	Response/Action
1	Section 3.2, 3.6 and 3.7.1 (First Nations and Métis Communities Consultation) Comment:	
	Generally, the protocol followed by Hydro One to ensure effective consultation with First Nation and Métis communities under the Environmental Assessment Act was appropriate. The Ministry of Energy was contacted regarding Duty to Consult obligations, appropriate notices of the project's commencement and Public Information Centre were provided in a timely manner, and requests for further information or separate presentation to any community that requested such were actioned appropriately. We note that section 7.3 of the report addresses protocol to be followed should any archaeological resources or human remains be found during construction. While we agree with the intention to contact a licensed archaeologist if such resources or remains are found, we strongly suggest that notification to all First Nation and Métis communities that have an interest in the project/location also be immediately contacted so that – in the event such resources or remains are First Nation in origin, protocols for handling such resources can be established immediately prior to the disturbance or removal of such from the property.	Section 7.3 of the Final ESR has been updated to include notification to all First Nation and Métis communities that have an interest in the project/location also be immediately contacted so that – in the event such resources or remains are First Nation in origin, protocols for handling such resources can be established immediately prior to the disturbance or removal of such from the property.
2	Section 4.3 and 7.3 (Impacts to Cultural Heritage Resource) Comment:	
	The Criteria for Evaluating Potential for Built	Thank you for the recommendation. Hydro One will

	Comment/Concern	Response/Action
	Heritage Resources, Cultural Heritage Landscape Checklist and Criteria for Evaluating Archaeological Potential both found no potential for archaeological or cultural resources in the study area. However, the Criteria for Evaluating Potential for Built Heritage Resources, Cultural Heritage Landscape Checklist as found in Appendix A-3 includes, under 'other considerations', the need to identify if there is any local or Aboriginal knowledge or documentation suggesting that the property has any cultural heritage significance. Responses by Hydro One are negative in this regard. We note however that the Class EA Commencement notices provided to First Nation and Métis communities do not explicitly solicit feedback regarding whether the study lands are culturally significant, or if any local knowledge of past human activities exist, with regard to First Nation or Métis communities. As such, we recommend that future Class EA First Nation and Métis consultation efforts include more targeted feedback prompts in the Notice of Project Commencement to ensure the scope of information desired from local First Nation and Métis communities, and any valuable information such communities may hold, are brought forward to Hydro One at the onset of a project.	consider including more targeted feedback prompts in the Notice of Commecement from local First Nation and Métis communities on future projects.
3	Section 3.5 and 3.7.4 (Municipal Government and Agencies Consultation) Comment:	
	Given the Class EA Guide's direction to ensure early, timely, and transparent communication with local municipal stakeholders, it appears that the draft Class EA has met its duty under the Act with regard to municipal consultation Given this review must depend on the Phase 1 Archaeological Report; it appears the conclusion that there is no potential for disturbance of archaeological or culturally significant resources is appropriate.	Noted.
4	Section 3.6.1 (Utilities) Comment:	
	Was contact ever made with Superior Propane? It	Superior Propane was identified through consultation

	Comment/Concern	Response/Action
	was reported that email and correspondence sent through Canada Post was returned and no response to an email sent to general customer service was received.	with the Chief Administrative Officer (CAO) of the Town of Marathon early on in the planning process. Superior Propane received the Initial Notification, Invitation to PIC, and Final Notification letter via a general email box. No response was received.
5	Section 3.6.3 (Potentially Affected and Interested Persons, Businesses, and Interest Groups Consultation) Comment:	
	No notable concerns were expressed by interested persons or interest groups either in writing or at the Public Information Centre.	Noted.
6	Section 4.1 (Impacts to Agricultural Resources) Comment:	
	With regard to assessing the impacts of any route or site planning project on agricultural resources, Hydro One considers the capacity for the subject lands to support agricultural production, along with present use and productivity of such lands. In the absence of soils classification data for this area within the Canada Land Inventory, a desktop review of potential for agricultural land impacts was completed. No agricultural potential or negative impacts were identified given the predominance of forest-cover in the study area. We agree with such assessment.	Noted.
7	Section 4.4 and 7.4.1 (Impacts to Human Settlements) Comment:	
	The Class EA includes a summary of relevant land use planning policies applicable to the study area. While the Provincial Policy Statement and Town of Marathon Official Plan (2016) are referenced, the Growth Plan for Northern Ontario is excluded. We recommend inclusion of consideration of this document and a brief summary of how the proposal conforms to or does not conflict with the Plan. We note that the Class EA states "the Town of Marathon's Official Plan (2016) and other planning documents are required to comply with the PPS to ensure consistency." However, such documents must be "consistent with", rather than "comply" with the PPS. We further note that the Schedule A to the Town's zoning by-law indicates the property is zoned "Ru" Rural, while section 4.4.1 states that	Section 4.4.1 (Land Use Planning) of the Final ESR has been revised to include a reference to the Growth Plan for Northern Ontario and how it conforms to the project. The wording in this section has been changed to specify that the planning documents must be 'consistent' with instead of 'comply' with the PPS. In addition, Section 4.4.1 has also been updated to include the correct zoning. Please refer to section 1.4.3 (Other Permits, Licenses and Approvals) in the ESR for reference to the fact that Hydro One Inc. is approved under the EA Act but not subject to the Planning Act. "As stated in section 62.(1) of the Planning Act (R.S.O. 1990, c. P.13),

	Comment/Concern	Response/Action
	the study area is not zoned. It is understood that Section 62(1) of the Planning Act provides that undertakings by Hydro One which are approved under the Environmental Assessment Act are not subject to Planning Act approvals. We recommend the inclusion of such a note in the EA document.	"An undertaking of Hydro One Inc. that has been approved under the EA Act is not subject to this Act."
8	Section 4.7 and 7.7 (Impacts to Recreational Resources) Comment:	
	In regards to the Shack Lake Access Trail relocation - We note that no details regarding means of communication with local land users or residents are provided. As such, we recommend Hydro One engage the Town to determine appropriate means to ensure such communication is provided effectively throughout the project's lifecycle.	Hydro One has ensured extensive consultation throughout the EA process with local land users, residents, and the Town of Marathon in regards to the relocation of the Shack Lake Access Trail. Sections 3.5 (Municipal Government and Agencies), 3.6.3 (Community Groups), 3.6.4 (Public Information Centre), and 3.7 (Summary of Key Issues) provide detailed information in regards to consultation for the Shack Lake Access Trail. Hydro One has been working with the Town of Marathon during the Class EA process and will continue to consult with the Town regarding the final layout and design of the station and property, and the effects of the construction on local traffic and community.
9	Section 4.2, 7.2 and 7.9 (Forestry Resource Effects & Mitigation Measures) Comment:	
	To mitigate any impacts to forestry resources, Hydro One intend to ensure any agreed upon commitment made with the Ministry of Natural Resources and the NFMC are met. We recommend that any agreement entered into be made publicly available - if possible - to ensure transparency in the planning process and to ensure those individuals whom use the forested area for recreational purposes are aware of the impacts and resulting benefits to forested lands as a result of this project.	Thank you for the recommendation. Due to confidentiality disclosure, any agreement made with the MNRF and NFMC will not be made publicly available.
10	Section 4.6 (General Comment) Comment:	
	Figures are not numbered throughout this section.	The figures in section 4.6 of the Final ESR have been updated to be numbered.
11	Section 4.6.1 (Physical Environment) Comment:	
	Surface geology is characterized by Hydro One as	Section 4.6.1 (Physical Environment) of the Final ESR

	Comment/Concern	Response/Action
	undifferentiated igneous and metamorphic bedrock. It is unclear from where these data were derived; citation required. Review of the Northern Ontario Engineering Geology Terrain Study (NEOGTS 2017) provided by the Ministry of Northern Development and Mines indicates surficial geology as "Ice Contact Delta" of glaciofluvial origin. Primary soil material is sand, with gravel as a secondary material. NOEGTS data appears to be consistent with borehole data outlined in Section 4.6.4 (6.1m to 8.2m of overburden with upper 2.4 to 3.0m consisting of sand and gravel).	has been revised to include the appropriate reference. The reference section has also been revised to reflect the correct citation. The reference for the date source is the following: Ontario Geological Survey, 1997. Quaternary geology, seamless coverage of the province of Ontario: Ontario Geological Survey, Data Set 14. This data was downloaded from the MNDM website.
12	Section 4.6.2 (Atmospheric Environment) Comment:	
	The report states that the closest meteorological station to the study area is the Wawa Meteorological Station approximately 186km southeast of the site. A review of historical climate data available from Environment and Climate Change Canada indicates that data exists for Marathon. Hourly data appears to be available from 2015 to present (Climate ID 6044967). Records of monthly weather data appear to exist from 1945 to 1984 (Climate ID 6044959), some of these latter records appear incomplete.	Climate normal data is unavailable for Marathon. The data available for Marathon only includes hourly data and not monthly averages for the 1981 to 2010 time period. The temperature presented from Wawa does not differ greatly for Marathon and thus will not be updated.
13	Section 4.6.3 (Surface Water Resources) Comment:	
	Methodology appears appropriate.	Noted.
14	Section 4.6.4 (Groundwater Resources) Comment:	
	Methodology appears appropriate.	Noted.
15	Section 4.6.5 (Designated or Special Natural Areas) Comment:	
	Tulloch reviewed data obtained from Land Information Ontario and agrees with the conclusion of this section.	Noted.
16	Section 4.6.6 (Wetlands) Comment:	
	LIO data indicates the site is situated in Ecoregion 3W (not 3E). This point also applies to Section 2.1.1 of the Marathon TS Expansion – Baseline Natural Heritage Surveys report (AMEC 2018).	Section 4.6.6 (Wetlands) of the Final ESR and Section 2.1.1 (Results) in the Marathon TS Expansion – Baseline Natural Heritage Surveys report (AMEC 2018) has been revised to indicate that the site is situated in Ecoregion 3W.

	Comment/Concern	Response/Action
17	Section 4.6.6 (Fish Habitat) Comment:	
	Please provide a reference for fish species known to occur in Shack Lake. Fish species listed here are beyond the information provided in LIO (ARA polygon) or the MNRF Fish On-line web tool. The thermal Regime of Shack Lake is not included. LIO data (ARA Polygon) indicates that Shack Lake is considered a Cold-Water system. The report states that "detailed documentation of fish habitat within the study areas was not undertaken for this Class EA as preliminary scoping did not identify any adverse effect to this aquatic resource feature". The Marathon TS Expansion – Baseline Natural Heritage Surveys report (AMEC 2018) does not investigate any form of fish habitat within the study area. It may be reasonable to assume that Shack Lake will not be adversely impacted by this project and, by extension, that fisheries studies in this waterbody are not warranted. None-the-less, field studies by AMEC 2018 should clarify if any other potential direct or indirect fish habitat exists within the study area (e.g. intermittent streams) to confirm the validity of this preliminary scoping	Section 4.6.6 (Fish Habitat) of the Final ESR has been revised to include the thermal regime of Shack Lake as well as update the fish species found in Shack Lake based on the East West Tie Transmission Project Draft Environmental Assessment Report – Natural Environment Existing Conditions Technical Report. This section was also revised to state that no fish habitat was observed during field observations.
18	Section 4.6.6 (Species at Risk) Comment:	
	No list of species at risk associated with the Marathon area (or Nipigon District of the MNRF) is provided. No such list is provided in the Marathon TS Expansion – Baseline Natural Heritage Surveys report (AMEC 2018).	A species list has been appended; however no SAR species were noted in the proposed study area for this transformer station expansion project. Studies undertaken by Nextbridge in the vicinity of the Project site have not resulted in the detection of any SAR.
19	Section 4.6.6 (Species at Risk) Comment:	
	Plant species listed in Table 2 of the Marathon TS Expansion – Baseline Natural Heritage Surveys report (AMEC 2018) includes shrub species listed as trees (Green Alder, Speckled Alder, Pine Cherry, Showy Mountain Ash) and shrubs species listed as forbs and grasses (Leatherleaf, Skunk Current, Small Cranberry).	Table 2 of the Marathon TS Expansion Baseline Natural Heritage Survey Report (Amec 2018) has been revised as per comment.

	Comment/Concern	Response/Action
20	Section 4.6.6 (Species at Risk) Concern:	
	Based on Section 2.1 of the Marathon TS Expansion – Baseline Natural Heritage Surveys report (AMEC 2018) it is unclear to what extent soil substrates were ground-truthed in the field. No mention is made of soil profile extraction and description. ELC field datasheets provided in Appendix B of the AMEC (2018) report appear to omit all soils related data (sections are left blank). Given that soil Effective Texture and soil Moisture Regime are the first properties keyed in the Boreal Manual of the ELC system (MNRF 2009), how were site Ecosites determined? The Ontario Land Cover Compilation (OLCC) available from Land Information Ontario suggest the presence of treed swamps immediately abutting the north and west sides of the existing TS footprint and within the footprint of the proposed expansion. Soil Moisture Regime, which is determined based on the presence / depth of soil mottling and gley, forms the bases for the differentiation of wetland from upland areas (including treed swamps). Soil moisture can also have implications regarding wildlife habitat usage; specifically, site suitability for ground nesting birds such as Eastern Whip-poor-will (THR).	Soil characterization was not completed in the field. It is accepted that soil characterization may add detail to habitat characteristics; however, it does not change the determination of Significant Wildlife Habitat.
21	Section 4.6.6 (Species at Risk) Concern:	
	Based on Section 2.2.2 of the Marathon TS Expansion – Baseline Natural Heritage Surveys report (AMEC 2018), surveys were performed targeting Eastern Whip-poor-will (THR) and Common Nighthawk (SC). Surveys were cited as generally conforming to the Draft Canadian Night Jar Protocol (Bird Studies Canada, 2016). This protocol is not intended for the confirmation of Whippoor- will presence / absence for land-use planning purposes. In Ontario, the MNRF provides technical direction on the targeted survey of Whip-poor-will. The MNRF Survey Protocol for Whip-poor-will, issued in draft in 2014 (Appendix Y), stipulates the timing,	Discussions were held with MNRF to determine the potential for Whip-poor-will within the study area at the onset of the project and field surveys did not reveal the presence of high quality habitat for this species within the study area. Studies undertaken by Nextbridge in the vicinity have not resulted in the detection of any SAR. Impacts to Whip-poor-will habitat are not anticipated to result from the project. Impacts to individual species will be mitigated through timing restrictions for vegetation clearing/removal. Section 7.6.6. (Wildlife and Significant Habitat) has been updated to reflect this. Should Whip-poor-will be detected on site, MNRF will be immediately notified to discuss any ESA approvals

	Comment/Concern	Response/Action
	methods and survey effort required to defensibly establish species presence and absence. In particular, the MNRF protocol requires three surveys performed from May 18 to June 30. Surveys are performed under appropriate weather conditions when the moon is no less than 50% illuminated. A bearing and estimated distance is recorded to each calling male from multiple acoustic vantage points to permit the triangulation of each male's position. Observations from multiple evenings are required to map defended territories. The locations of defended territories are required to categorise habitat according to the MNRF General Habitat Description for Eastern Whip-poor-will (Caprimulgus vociferous) (Appendix Y). Surveys performed by AMEC appear have been conducted at some time between July 7 and July 9; marginally later than the recommended survey period. The exact date(s), the number of surveys, and the weather conditions are not provided. Section 2.2.2 of AMEC 2018 states that the Bird Studies Canada protocol recommends two surveys be performed during the breeding season. It is unclear if two surveys were performed by AMEC at this site. It is also unclear where the two-night survey effort citation was acquired. The Bird Studies Canada protocol (attached in Appendix Y) is as an annual roadside citizen science monitoring initiative where volunteers travel roadways only once per year. These Bird Studies Canada data are intended for multi-year monitoring of Whip-poor-will (and other Nightjar species) at a national level; they are not appropriate for site specific surveys to satisfy proponent due diligence under the Endangered Species Act. TULLOCH reviews of the Atlas of the Breeding Birds of Ontario, MNRF NHIC and eBird.org databases found no records of Eastern Whip-poor-will in vicinity to the Study Area. Breeding by Eastern Whip-poor-will is not prevalent along the	that may be required.

	Comment/Concern	Response/Action
	north shoreline of Lake Superior (Cadman et al 2007). Sandilands (2010) considers the Marathon area to be included within the "Marginal Breeding" range for the species. None-the-less, given the ecosites observed within the Study Area and the presence of considerable edge habitat resulting from existing utility corridors, suitable habitat for this species is likely present. Clarity should be provided regarding the quantity and quality of nesting habitat for Eastern Whip-poor-will within the Study Area as well as the quantity and conditions of survey effort applied targeting this species. A risk assessment should be performed in light of these details and the value of additional survey effort should be evaluated.	
22	Section 4.6.6 (Species at Risk) Concern:	
	Endangered species of bat are not considered. According to Bat Conservation International (BCI 2018) and Bats of Ontario (Thorne 2017) at least two species of Endangered Bat could occur within the Study Area; Little Brown Myotis (Myotis lucifugus) and Northern Myotis (Myotis septentrionalis). Table 4-1 indicates that Bat Maternity Colonies are unlikely on site due to limited suitable habitat. Male bats and non-gravid females of the Myotis genus will roost singularly, or in small groups, in temporary and transient 'Day Roosts'. Day roosts can occur across a broader range of habitat conditions and can include most naturally and artificially created tight spaces created in trees (e.g. cavities, crevices and sloughing bark), rock crevices, cracked masonry and abandoned machinery. Discounting day roosting by bats, including endangered Myotis species, is difficult in forested habitats. Bats day roosting in tree crevices could be placed at risk of harm or mortality if vegetation is cleared during the bat active season. This presents a	Discussions were held with MNRF to determine the potential for protected bat species within the study area at the onset of the project. Field surveys did not reveal the presence of high quality maternity roost or hibernacula habitat for bats within the project area. There were limited mature trees, tree cavities and snags present in the project area and no caves or buildings were identified. Studies undertaken by Nextbridge in the vicinity have not resulted in the detection of any SAR. Impacts to bat habitat are not anticipated to result from the project. Impacts to individual species will be mitigated through timing restrictions for vegetation clearing/removal to avoid sensitive periods for bats from May 15th to August 31st. Section 7.6.6. (Wildlife and Significant Habitat) has been updated to reflect this. Should SAR bats be detected on site, MNRF will be immediately notified to discuss any ESA approvals that may be required.

	Comment/Concern	Response/Action
	risk of contravention of Section 9(1)(a) of the Ontario Endangered Species Act.	
23	Section 4.6.6 (Figure 4-7) Comment:	
	Ecosite B055Ts is listed. The suffix "Ts" is not a vegetation cover class recognized by the Boreal Manual of the ELC system. This ecosite is not listed in Table 1 of the Marathon TS Expansion – Baseline Natural Heritage Surveys report (AMEC 2018) but is included in Figure 2 of the AMEC report. Please clarify if this is a typographical error or symbolic of some other community property.	Section 4.6.6 (Figure 4-7) of the Final ESR has been revised. Ecosite B055Ts was a typographical error and should be Ecosite B055.
24	Section 4.6.6 (Wildlife and Significant Habitat) Comment:	
	High level results for anuran and avian studies are summarized from the Marathon TS Expansion – Baseline Natural Heritage Surveys report (AMEC 2018) provided in Appendix 3B. Section 4.6.6 should also briefly state the protocols referenced by AMEC 2018 and survey effort applied.	Section 4.6.6 (Wildlife and Significant Habitat) of the Final ESR has been revised to include protocols and survey efforts from the Marathon TS Expansion – Baseline Natural Heritage Surveys report (Amec 2018).
25	Section 4.6.6 (Wildlife and Significant Habitat) Comment:	
	The Migratory Birds Convention Act (MBCA 1994) should be cited in this section and its relevance identified in relation to the undertaking.	Section 4.6.6 (Wildlife and Significant Habitat) of the Final ESR has been revised to include a reference to the Migratory Birds Convention Act and its relevance. However, further detail is provided in Section 7.6.6 (Natural Heritage Features) of the Final ESR.
26	Section 4.6.6 (Wildlife and Significant Habitat) Comment:	
	Tulloch independently verified Ontario Breeding Bird Atlas and Ontario Reptile and Amphibian Atlas records cited in the Marathon TS Expansion – Baseline Natural Heritage Surveys report (AMEC 2018). Tulloch findings agree with AMEC 2018.	Noted.
27	Section 6.2 (Construction Phase) Comment:	
	Erosion and sediment control should be listed under all headings (Relocation of Shack Lake Access Trail, Station Expansion, Line Work and Future Station Work) as part of the Site preparation.	Section 6.2 has been updated to include erosion and sediment control. It is important to note that there will not be a large amount of erosion and sediment control necessary due to the relatively flat terrain and lack of water on site. The majority of the erosion and sediment control issues will be resolved by the application of grass seed wherever there is exposed mineral soil.

	Comment/Concern	Response/Action
28	Section 7.6 (General Comment) Comment:	
	For consistency, consider adopting bullet points for all sections (or paragraph form for all sections).	Thank you for the recommendation.
29	Section 7.6.1 (Physical Environment) Comment:	
	Mitigations and anticipated impacts appear appropriate. Could Hydro One clarify if there are any anticipated risks associated with spills from fluids contained with the transformer equipment? If so, appropriate mitigation measures should be presented to prevent impacts on the environment.	The oil used in the transformers is mineral oil. Operation of industrial stormwater management facilities is regulated by the Ontario Ministry of Environment and Climate Change (MOECC). As part of the project, Hydro One will obtain an Environmental Compliance Approval (ECA) from the MOECC for operation of the stormwater management system at Marathon TS, including a spill containment system for the proposed oil-filled reactors. The facility will discharge clean stormwater, meeting Ontario Provincial Water Quality Objectives to the ground surface adjacent to the station. Drainage discharge would not be in quantities or qualities expected to cause an adverse effect. Section 1.4.3 of the draft ESR outlines the necessary permits, licenses and approvals that may be required under municipal, provincial and federal legislations, in addition to the Class EA process.
30	Section 7.6.2 (Atmospheric Environment) Comment:	
	Mitigations and anticipated impacts appear appropriate.	Noted.
31	Section 7.6.3 (Site Preparation) Comment:	
	The report states "During construction, it is expected that changes to stream flow and water levels in adjacent aquatic ecosystems (i.e. watercourses, wetlands, etc.) will not occur as these hydraulic features were not identified within the study area." Please clarify if the assumed absence of hydraulic features is based on desktop review or if this absence was confirmed through field studies.	Section 7.6.3 (Site Preparation) of the Final ESR was revised to state that the assumed absence of hydraulic features was based on both the Ontario Base Maps (OBM) map review as well as a field reconnaissance.

	Comment/Concern	Response/Action
33	Section 7.6.4 (Groundwater Resources) Comment:	
	Mitigations and anticipated impacts appear appropriate.	Noted.
34	Section 7.6.5 (Designated or Special Natural Areas) Comment:	
	Section appears appropriate.	Noted.
35	Section 7.6.6 (Natural Heritage Features) Comment:	
	Reference is made to protective barriers. Please elaborate. Is this intended to be similar to reptile exclusion fencing? Is there a Best Management Practice that will be referenced for this?	Section 7.6.6 (Natural Heritage Features) of the Final ESR has been revised to specify that silt fencing would be used to protect adjacent features and prevent the mitigation of sediment-laden water from leaving the construction site.
36	Section 7.6.6 (Natural Heritage Features) Comment:	
	Environment and Climate Change Canada considers Marathon to be Nesting Zone C5 (not C4). The General Nesting Period for the Zone is considered April 20 to August 29 for forested habitat (ECCC 2018).	Section 7.6.6 (Natural Heritage Features) of the Final ESR has been revised to reflect the correct Nesting Zone and corresponding period.
37	Section 7.6.6 (Natural Heritage Features) Comment:	
	Methodology for nest searches in advance of vegetation removal (if required during the nesting season) should indicate when the searches are to be performed relative to the start of disturbance.	Section 7.6.6 (Natural Heritage Features) of the Final ESR has been revised to include a statement regarding nest surveys to be undertaken as per Amec Foster Wheeler's Standard Operating Procedure for Nest Searching.
38	Section 7.6.6 (Natural Heritage Features) Comment:	
	Report proposes the retention of protective buffer zones around active nests found on site. These zones are proposed to range from 10m to 500m depending on species. At minimum, all buffers should be greater in radius than the height of the canopy. This will ensure that trees felled in vicinity cannot damage the active nests.	Section 7.6.6 (Natural Heritage Features) of the Final ESR has been revised to state that all buffers will be greater in radius than the height of the canopy in order to ensure that trees felled in vicinity cannot damage the active nests.
39	Section 7.6.6 (Natural Heritage Features) Comment:	
	The Migratory Bird Convention Act (MBCA 1994) is cited in the text but not included in the References section.	The references section of the Final ESR has been updated to include a reference to the Migratory Bird Convention Act (MBCA 1994).
40	Section 7.6.6 (Fish Habitat) Comment:	
	Please clarify if the assumed absence of fish habitat is based on desktop review or if this absence was confirmed through field studies.	Section 7.6.6 (Fish Habitat) of the Final ESR was revised to state that aquatic resources were only reviewed from secondary source information and no

	Comment/Concern	Response/Action
		formal field investigations were undertaken. Field reconnaissance confirmed that fish habitat features were not present within or directly adjacent to the proposed expansion.
41	Section 7.6.6 (Species at Risk) Concern:	
	As per comments to Section 4.6.6, please clarify if this project presents a risk of Eastern Whip-poor-will or its habitat.	Impacts to Whip-poor-will are not anticipated to result from this project.
42	Section 7.6.6 (Species at Risk) Concern:	
	The potential for day roosting by endangered bat species Little Brown Myotis (Myotis lucifugus) and Northern Myotis (Myotis septentrionalis) should be considered if the clearing of vegetation is to be performed during the bat active season. Searches for evidence of bat day roosting may be warranted. The MNRF should be consulted for clarification of when bats are considered active in Nipigon District.	Impacts to Northern Myotis and Little Brown Myotis are not anticipated to result from this project.
43	Section 7.6.6 (Species at Risk) Comment:	
	Report proposes the "use of gates or other physical barriers to reduce additional traffic on any access roads where feasible". Is this an option given concerns raised during public consultation regarding public access to Shack Lake (Section 3.7.5)?	Section 7.6.6 (Species at Risk) of the Final ESR has been revised and all mitigation measures were removed.
44	Section 7.6.6 (Species at Risk) Comment:	
	Mitigations for Woodland Caribou appear appropriate.	Noted.
45	Section 7.8 (Impacts to Visual and Aesthetic Resources) Comment:	
	The class EA has identified that the existing 50m of vegetation between the transformer site and Peninsula Road would remain untouched and provide a natural screening of the new expansion from the road. Based on aerial imagery, we agree that such screening is appropriate.	Noted.

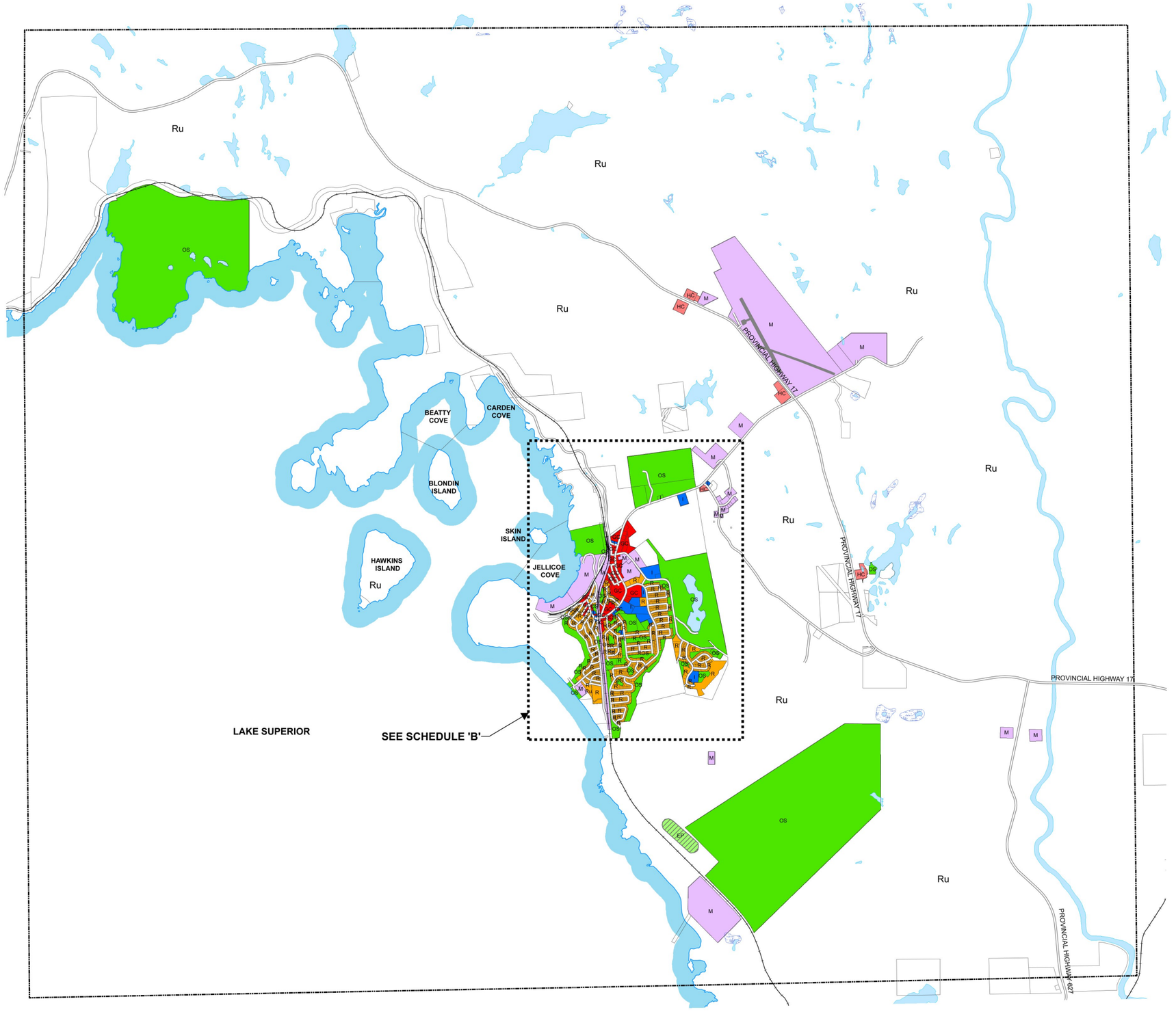
APPENDIX B:

ENVIRONMENTAL FEATURES IN THE STUDY AREA – BASELINE DATA

APPENDIX B-1:

HUMAN SETTLEMENTS

TOWN OF MARATHON OFFICIAL PLAN MAPS



N

TOWN OF MARATHON,
OFFICIAL PLAN

SCHEDULE 'A'

LAND USE

750 375 0 750 1,500 Meters
2,400 1,200 0 2,400 4,800 Feet

Legend

- ROADS
- RAILWAY
- STREAMS
- General Commercial (GC)
- Highway Commercial (HC)
- Industrial (M)
- Institutional (I)
- Residential (R)
- Rural (Ru)
- Open Space (OS)
- Environmental Protection (EP)
- MUNICIPAL BOUNDARY
- WETLAND
- LAKES
- LAKE SUPERIOR

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Oct 26, 2016
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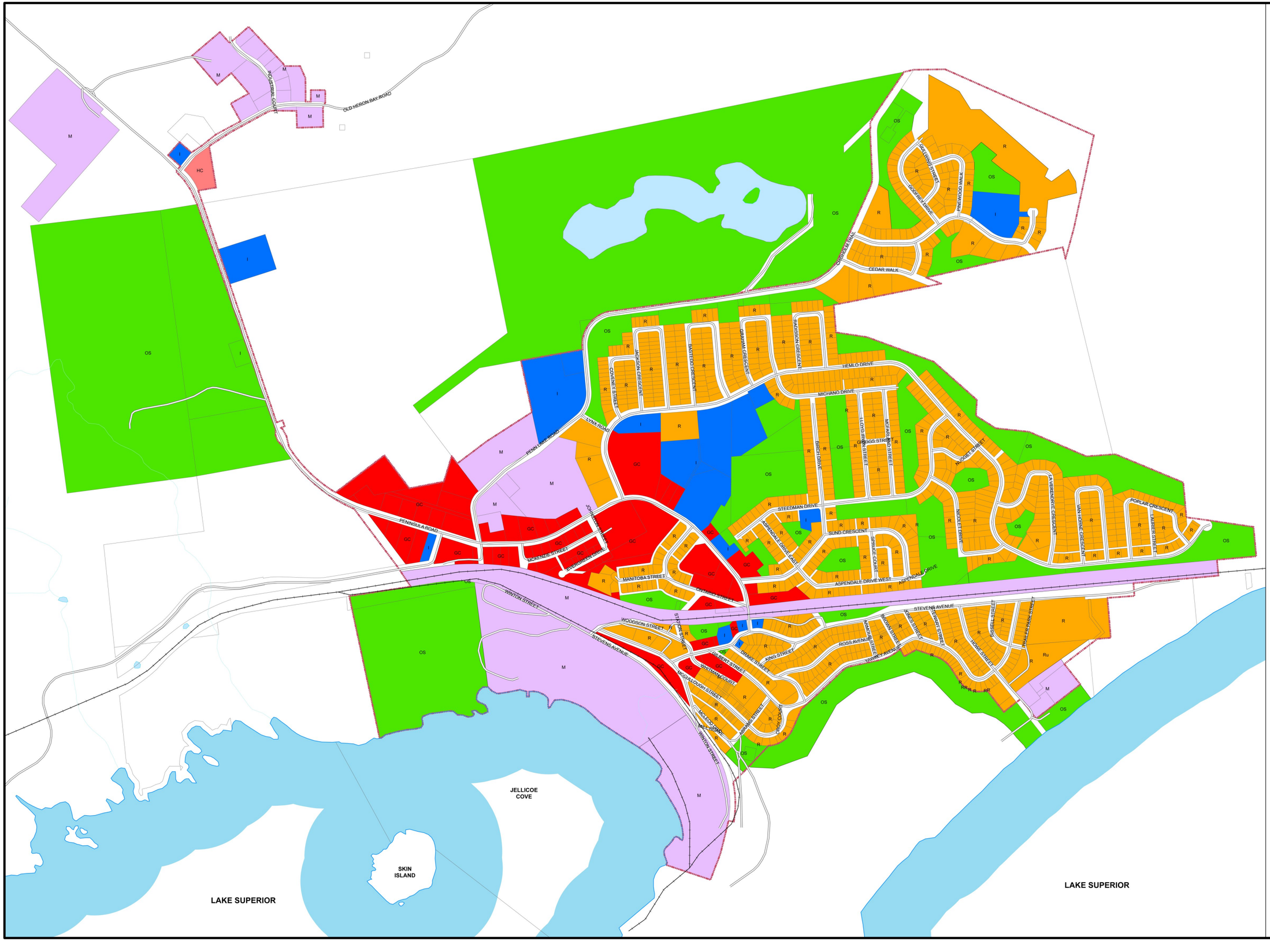
Projection:
Transverse Mercator
NAD 1983 UTM - Zone 15N



TOWN OF MARATHON,
OFFICIAL PLAN

SCHEDULE 'B'

LAND USE
URBAN SERVICE AREA

150 75 0 150 300 Meters
500 250 0 500 1,000 Feet

Legend

- ROADS
- RAILWAY
- STREAMS
- URBAN SERVICE AREA
- General Commercial (GC)
- Highway Commercial (HC)
- Industrial (M)
- Institutional (I)
- Residential (R)
- Rural (Ru)
- Open Space (OS)
- Environmental Protection (EP)
- WETLAND
- LAKES
- LAKE SUPERIOR

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APPENDIX B-2:

CLIMATE NORMAL DATA

Climate Normals 1981-2010 Station Data

"Metadata including Station Name, Province, Latitude, Longitude, Elevation, Climate ID, WMO ID, TC ID"

STATION_NAME	PROVINCE	LATITUDE	LONGITUDE	ELEVATION	CLIMATE_ID	WMO_ID	TC_ID
*WAWA A ON		" 47°58'00.000"" N"	" 84°47'00.000"" W"	287.1 m	6059D09		

* This station meets WMO standards for temperature and precipitation.

Legend

"A = WMO ""3 and 5 rule"" (i.e. no more than 3 consecutive and no more than 5 total missing for either temperature or precipitation)"

B = At least 25 years

C = At least 20 years

D = At least 15 years

1981 to 2010 Canadian Climate Normals station data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Code
Temperature														
Daily Average (°C)	-14	-11.9	-6.5	1.6	8.1	12.6	15.1	15.3	11.4	5	-1.8	-9.5	2.1	A
Standard Deviation	3.6	3.2	2.4	2.1	2	1.7	1.5	1.5	1.6	1.5	2.3	3.5	1.1	A
Daily Maximum (°C)	-7.7	-5.4	-0.2	7.5	14.6	19	20.9	20.8	16.6	9.5	2.2	-4.5	7.8	A
Daily Minimum (°C)	-20.2	-18.3	-12.8	-4.2	1.5	6.1	9.2	9.8	6.1	0.4	-5.7	-14.5	-3.6	A
Extreme Maximum (°C)	6.8	11.5	20	30.3	31.4	30.7	33.1	34.1	28.9	28	19.4	15.5		
Date (yyyy/dd)	2006/27	2000/26	2010/31	1986/28	2006/29	1995/23	1991/18	2005/03	1999/05	1983/01	2008/06	1982/02		
Extreme Minimum (°C)	-40.9	-50	-37.1	-25.2	-9.4	-3.4	0	0.7	-5.2	-13	-26	-39		
Date (yyyy/dd)	1996/31	1981/11	2007/06	1982/05	1996/03	1993/06	1992/11	1986/28	1979/19	1981/24	1989/29			

1980/24

Precipitation

Rainfall (mm)	2.3	5.3	18.8	47	74.6	82.2	96.1	92.5	121.8	107	48.3	12	707.8 A
Snowfall (cm)	72.1	55.8	40.1	18.4	2.8	0	0	0	0.2	9.7	40.5	79.8	319.4 A
Precipitation (mm)	55.7	46.9	54.1	66.9	77.5	82.2	96.1	92.5	122	117.5	85.7	72.5	969.7 A
Average Snow Depth (cm)	45	58	49	13	0	0	0	0	0	0	4	21	16 A
Median Snow Depth (cm)	44	58	49	11	0	0	0	0	0	0	2	19	15 A
Snow Depth at Month-end (cm)	57	58	32	2	0	0	0	0	0	0	0	10	33 16 A
Extreme Daily Rainfall (mm)	27.4	47.4	35.2	46.2	73.6	101.4	83.2	61.2	64.6	66	46.4	27	
Date (yyyy/dd)	1980/11	1999/11	1977/27	1992/21	2003/11	1998/12	1990/29	1988/13	1995/30	2002/04	1991/30	2001/05	
Extreme Daily Snowfall (cm)	29.2	27.4	31.4	32.4	22.8	0	0	0	2.5	40.8	29.8	51	
Date (yyyy/dd)	1994/03	1999/28	2003/28	2007/04	2002/08	1977/01	1977/01	1977/01	1980/25	1989/20	1983/29	2009/05	
Extreme Daily Precipitation (mm)		60.6	47.4	44.7	46.2	73.6	101.4	83.2	61.2	64.6	66	51.9	56
Date (yyyy/dd)	1996/18	1999/11	1979/23	1992/21	2003/11	1998/12	1990/29	1988/13	1995/30	2002/04	1988/05	2009/05	
Extreme Snow Depth (cm)	140	131	145	128	56	0	0	0	0	37	46	80	
Date (yyyy/dd)	1996/30	1997/02	1997/17	1997/01	1996/01	1977/01	1977/01	1977/01	1977/01	1989/21	1995/30	1992/31	

Days with Maximum Temperature

<= 0 °C	27.3	22.9	14.8	3.2	0.03	0	0	0	0	0.63	10.6	22.4	101.8 A
> 0 °C	3.7	5.4	16.2	26.8	31	30	31	31	30	30.4	19.4	8.6	263.4 A
> 10 °C	0	0.07	1.5	9.2	23.8	29.2	30.9	31	27.6	13.5	2.6	0.1	169.6 A
> 20 °C	0	0	0	1.1	5.9	12.3	18.8	18.2	6.7	0.63	0	0	63.6 A
> 30 °C	0	0	0	0.03	0.07	0.07	0.1	0.1	0	0	0	0	0.37 A
> 35 °C	0	0	0	0	0	0	0	0	0	0	0	0	0 A

Days with Minimum Temperature

> 0 °C	0.2	0.4	1.3	4.5	17.6	28.4	31	31	26.3	14.3	4.8	1

160.8 A												
<= 2 °C 31	28.1	30.6	28.2	18.2	5.2	0.37	0.28	7	21.7	27.9	30.8	
229.3 A												
<= 0 °C 30.8	27.8	29.8	25.5	13.4	1.6	0.03	0	3.7	16.7	25.2	30	
204.5 A												
< -2 °C 30.1	26.9	27.9	20.3	7	0.2	0	0	0.97	9.6	20.5	28.1	
171.4 A												
< -10 °C	25.4	22.1	18.3	3.5	0	0	0	0	0	0.1	7	19.9
96.4 A												
< -20 °C	16.1	12.8	6.2	0.27	0	0	0	0	0	0	0.9	8.9
45.2 A												
< - 30 °C	5.5	2.6	0.82	0	0	0	0	0	0	0	0	1.5
10.4 A												
Days with Rainfall												
>= 0.2 mm	1.4	1.2	3.6	7	12	12.8	13.2	13.3	15.2	13.8	7.7	2.9
104.2 A												
>= 5 mm 0.1	0.3	1.1	2.9	5.1	5.1	5	5.1	6.8	6.7	3.1	0.8	42.2
A												
>= 10 mm	0.03	0.1	0.55	1.4	2.5	2.7	3.1	3.2	4.3	3.7	1.7	0.37
23.6 A												
>= 25 mm	0	0.03	0.07	0.33	0.37	0.47	0.9	0.97	1	0.87	0.3	0.03
5.4 A												
Days With Snowfall												
>= 0.2 cm	16.7	14	9.6	5.1	0.83	0	0	0	0.23	3.3	11.2	16.7
77.7 A												
>= 5 cm 5.1	4.2	2.7	1.1	0.13	0	0	0	0	0.5	2.7	5.4	21.8
A												
>= 10 cm	1.8	1.4	1.1	0.47	0.07	0	0	0	0	0.13	0.97	2.3
8.3 A												
>= 25 cm	0.07	0.03	0.07	0.03	0	0	0	0	0	0.03	0.03	0.17
0.43 A												
Days with Precipitation												
>= 0.2 mm	17	14.1	11.9	10.5	12.4	12.8	13.2	13.3	15.3	15.6	16.1	17.6
169.8 A												
>= 5 mm 3.6	3.4	3.4	4.2	5.2	5.1	5	5.1	6.8	7.3	5.8	5.1	60
A												
>= 10 mm	1	0.73	1.7	2	2.5	2.7	3.1	3.2	4.3	4	2.7	1.6
29.5 A												
>= 25 mm	0.07	0.07	0.17	0.5	0.37	0.47	0.9	0.97	1	0.9	0.33	0.07
5.9 A												
Days with Snow Depth												
>= 1 cm 30.9	28.2	30.6	17.3	0.77	0	0	0	0	1.2	13.9	27.7	
150.7 A												
>= 5 cm 30.4	28.2	29.7	13.6	0.6	0	0	0	0	0.6	7.7	24.9	

135.7	A												
>= 10 cm		29.1	28.2	28.8	10.9	0.33	0	0	0	0	0.23	4.2	21.9
123.7	A												
>= 20 cm		26.3	27.5	27.9	7.7	0.27	0	0	0	0	0.07	0.97	14.8
105.5	A												
Wind													
Speed (km/h)		10	9.9	10.5	10.3	9.2	8.1	7.2	8.2	10	10.1	10.9	9.5
9.5	C												
Most Frequent Direction		N	NE	N	NE	SW	SW	SW	SW	SW	SW	SW	N
N	SW	C											
Maximum Hourly Speed (km/h)		70	52	52	52	54	48	52	52	56	63		
67	52	70											
Date (yyyy/dd)		2008/03	1988/20	1990/01	2008/26	1980/31	1986/03	1993/06	2006/06	1989/27	2007/03	1977/21	
1985/01	2008/03												
Direction of Maximum Hourly Speed				S	NE	SW	S	NE	S	SW	S	SW	
S	SW	N	S										
Maximum Gust Speed (km/h)				107	82	93	104	87	98	82	85	113	104
100	104	113											
Date (yyyy/dd)		2008/03	2003/09	1989/28	2004/18	2006/11	2007/07	2007/10	2004/18	2007/21	2007/03	1977/21	
1982/09	2007/21												
Direction of Maximum Gust				SW	SW	N	NW	NE	S	S	S	SW	SW
SW	SW	SW											
Days with Winds >= 52 km/h				0.3	0.3	0.2	0.2	0.1	0.2	0.1	0.1	0.3	0.4
0.5	0.2	2.9	A										
Days with Winds >= 63 km/h				0	0	0	0	0	0.1	0	0	0.1	0.1
0.1	0	0.5	A										
Degree Days													
Above 24 °C		0	0	0	0	0	0	0	0.1	0	0	0	0
0.1	A												
Above 18 °C		0	0	0	0	0.9	4.9	9.6	11.2	2.9	0.2	0	0
29.7	A												
Above 15 °C		0	0	0	0.5	4.7	21.1	41.1	44.3	14	1.1	0	0
126.7	A												
Above 10 °C		0	0	0	3.7	33.1	94.5	159.6	165.7	72.8	9.8	0.4	0
539.6	A												
Above 5 °C		0	0.2	1.7	20.2	112.8	227.7	312.5	319.6	191.1	51.9	6	0.3
1244	A												
Above 0 °C		1.2	3.7	17.9	86.8	250.9	377.2	467.5	474.6	338.3	160.3	42.4	6
2226.6	A												
Below 0 °C		441	338.6	217.7	37.7	0.5	0	0	0	0	5.2	94.9	
300.8	1436.3	A											
Below 5 °C		594.8	476.3	356.5	121.1	17.5	0.6	0	0	2.8	51.7	208.5	
450.2	2279.8	A											
Below 10 °C		749.8	617.3	509.8	254.6	92.7	17.3	2.1	1.2	34.6	164.7	352.9	
604.9	3401.7	A											
Below 15 °C		904.8	758.4	664.8	401.3	219.3	94	38.6	34.7	125.8	310.9	502.5	

759.8 4814.9 A
Below 18 ˚C 997.8 843.1 757.8 490.9 308.5 167.7 100.2 94.6 204.7 403 592.5
852.8 5813.6 A
Humidex

Extreme Humidex 6.7 12.3 20.1 30.6 37.1 39 37.1 38.9 34.9 28.3 19.7 18.5

Date (yyyy/dd) 2006/27 2000/26 1990/15 1990/28 2010/24 1994/15 1986/18 2005/03 1983/03 2005/02 2008/06
1982/03
Wind Chill

Extreme Wind Chill -51.1 -44.6 -43.6 -30.1 -12.4 -2.8 0 0 -6.9 -13.1
-31.9 -46.1
Date (yyyy/dd) 1986/27 1995/05 2003/02 1995/04 1981/10 1977/03 1977/01 1977/01 1981/30 1997/27 2005/24
1993/25
Humidity

Average Relative Humidity - 0600LST (%) 78.8 79.5 81.3 83.2 86.8 91.4 94.2 93.9 91.3
88.3 84.7 82.6 86.3 A
Average Relative Humidity - 1500LST (%) 72.3 68.8 64.3 57.9 57.2 63.7 69.3 68.3 69.4
69.4 74.4 76 67.6 A

1981 to 2010 Canadian Climate Normals station data (Frost-Free)

Frost-Free:	Code
Average Date of Last Spring Frost	5-Jun A
Average Date of First Fall Frost	18-Sep A
Average Length of Frost-Free Period	105 Days A

Probability of last temperature in spring of 0 ˚C or lower on or after indicated dates	10%	25%	33%	50%	66%	75%	90%
Date	19-Jun	8-Jun	6-Jun	5-Jun	2-Jun	30-May	20-May

Probability of first temperature in fall of 0 ˚C or lower on or after indicated dates	10%	25%	33%	50%	66%	75%	90%
Date	7-Sep	10-Sep	12-Sep	17-Sep	21-Sep	26-Sep	3-Oct

Probability of frost-free period equal to or less than indicated period (Days)	10%	25%	33%	50%	66%	75%	90%
Days	81	93	100	105	115	118	123

APPENDIX B-3:

BASELINE NATURAL HERITAGE SURVEYS

Technical Memorandum

Date: July 27, 2018

To: Yu San Ong (Hydro One)
April Fang (Hydro One)
Stephanie Hodsoll (Hydro One)

From: Megan Hazell (Amec Foster Wheeler)

CC: Bradley Dufour (Amec Foster Wheeler)

Ref: TC170411

Re: **Marathon TS Expansion – Baseline Natural Heritage Surveys**

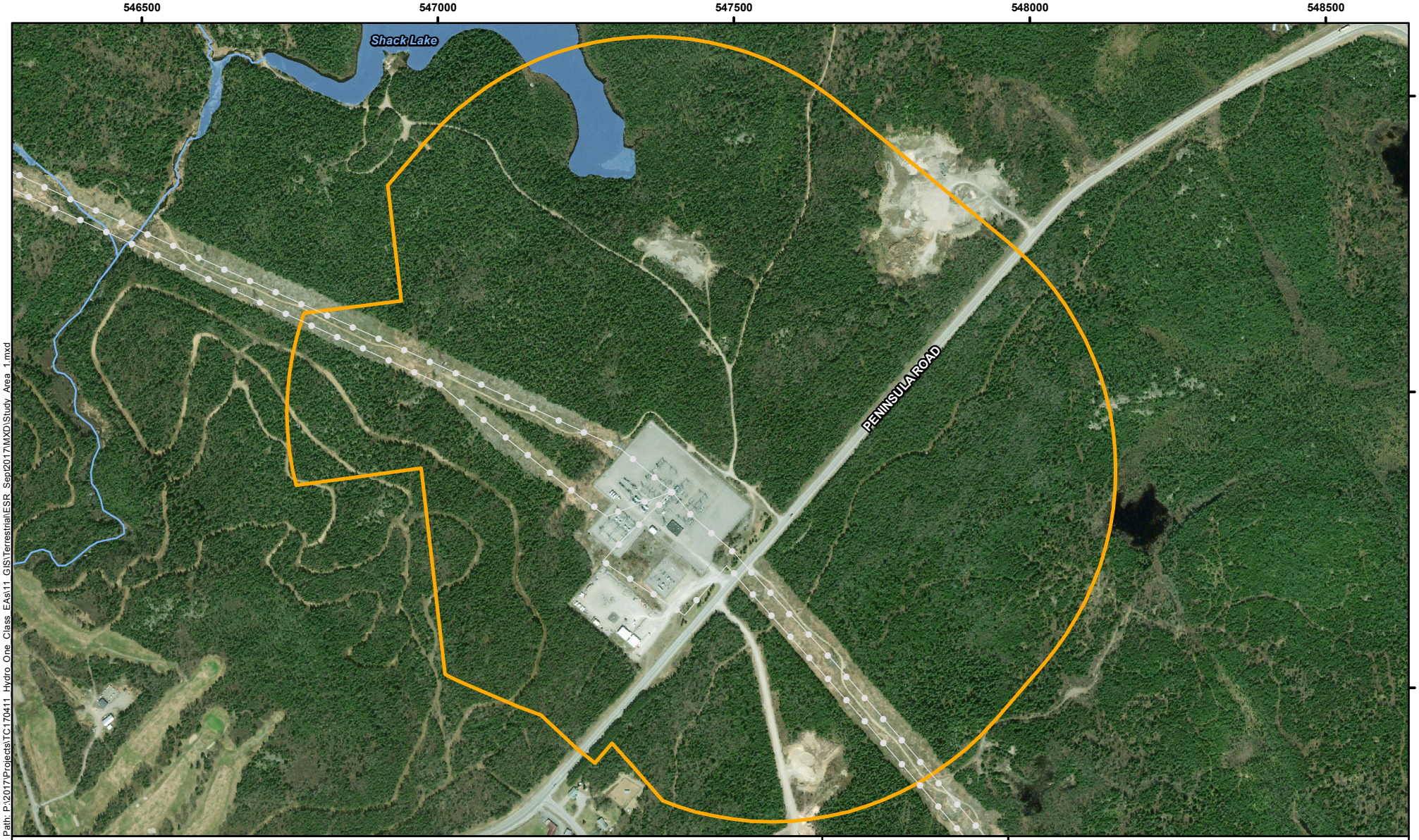
1.0 INTRODUCTION

Hydro One Networks Inc. (Hydro One) has initiated a Class Environmental Assessment (EA) for Minor Transmission Facilities (Hydro One, 2016) to expand its existing Marathon Transformer Station (TS) in the Town of Marathon, Ontario. This proposed TS expansion (the "Project") is required to accommodate the new East-West Tie transmission line. A separate EA process is in progress for the East-West Tie transmission line project.

Hydro One retained Amec Foster Wheeler Environment & Infrastructure (Amec Foster Wheeler) to undertake baseline natural heritage surveys as required under the Class EA process. These surveys were undertaken to characterize the existing natural environment within the study area. This assessment is consistent with requirements of the Class EA process and the Ontario *Environmental Assessment Act*.

To characterize and assess the natural heritage features within the study area, a detailed field survey program was undertaken. The study area for this assessment included the proposed Project footprint and a 500-m buffer (Appendix A: Photo 1 - 3, Figure 1). The study area included the existing TS, including proposed expansion area and relocated Shack Lake access road as well as Crown Land. Properties under private ownership were excluded from the study as permission to enter for access was not received prior to the completion of field surveys.

AMEC Foster Wheeler Environment & Infrastructure
160 Traders Blvd. E., Suite 110
Mississauga, Ontario, L4Z 3K7
Tel: (905) 568-2929
Fax: (905) 568-1686
amecfw.com



Path: P:\2017\Projects\TC170411_Hydro_One_Class_EAs\11_GIS\Terrestrial\ESR_Sep2017\MXD\Study_Area_1.mxd

LEGEND

- Proposed Study Area
- Transmission Line
- Watercourse
- Waterbody

NOTES:
- Background imagery from Bing.

hydro one

amec foster wheeler

MARATHON TS EXPANSION

Marathon TS Study Area

Datum & Projection:
NAD 1983 UTM Zone 16N

N
W E
S

0 0.1 0.2 0.4 0.6 0.8 1 Kilometres

PROJECT N°:TC170411	**FIGURE: 1**
SCALE: 1:9,000	DATE: September 2017

The documentation and inventory of the natural heritage features within the study area is a pre-requisite to determining potential adverse environmental impacts associated with the proposed TS expansion. The assessment of impacts as presented in the Environmental Study Report (ESR) rely on this baseline information to evaluate direct impacts resulting from the permanent alteration of the natural environment and indirect impacts resulting from either temporary works or from direct impacts that have influenced the natural environment outside of the footprint of the proposed TS.

2.0 BASELINE NATURAL HERITAGE SURVEYS

The following provides survey methodologies and the results of the respective components of the field survey program. The field survey program was undertaken by qualified Amec Foster Wheler terrestrial ecologists and wildlife biologists within the study area between July 7 - 9, 2017. Representative photographs are provided in the Appendix A and referenced in the subsequent sections.

Secondary sources and databases were reviewed to ascertain vegetation and wildlife species present in the study area. Information provided by external agencies, publicly-available topographic data, and correspondence with external agencies allowed for assessment of Areas of Natural or Scientific Interest (ANSI), Environmentally Sensitive Areas (ESA), Provincially Significant Wetlands (PSW), other natural heritage features and Species at Risk (SAR) located within or adjacent to the study area. Sources reviewed as part of this initial desktop assessment included:

- Correspondence with the Ontario Ministry of Natural Resources and Forestry (MNRF) (Nipigon District);
- Environment and Climate Change Canada's Species at Risk Public Registry database (ECCC, 2017);
- MNRF Species at Risk in Ontario List (MNRF, 2017);
- MNRF's Natural Heritage Information Centre (NHIC);
- Topographic and Species at Risk information from the Land Information Ontario (LIO) database;
- The Ontario Reptiles and Amphibian Atlas (ORAA) (Ontario Nature, 2012);
- The Atlas of the Mammals of Ontario (AMO) (Dobbyn, 1994);
- Bat species profiles and range maps for the province of Ontario provided by Bat Conservation International, Inc. (BCI, 2013); and,
- The Second Atlas (2001-2005) of Breeding Birds of Ontario (ABBO) (Cadman et al. 2007);

The MNRF NHIC database utilizes a 1 km x 1 km system. The study area overlaps with four (4) NHIC atlas squares including 16EU4698, 16EU4699, 16EU4798 and 16EU4799. The study area is largely contained within square 16EU4798.

2.1 Vegetation Communities and Plants

Initial Ecological Land Classification (ELC) and vegetation community (ecosite) delineation was undertaken through the review of satellite imagery and existing Forest Resource Inventory (FRI) mapping from the provincial LIO. The field surveys then confirmed and updated the vegetation community boundaries and classification from LIO, converting the community delineations into Ecological Land Classifications (ELC, Lee *et. al*., 1998, 2008) with translation to Northern Ontario ecosites (MNRF, 2012) and boreal forests (Forest Research Partnership, 2015).

ELC was utilized to broadly characterize the ecosites within the study area as well as to identify the presence of rare and/or sensitive vegetation communities and/or species. ELC was further utilized to focus and target efforts for other field survey program components such as the identification, mapping and classification of Significant Wildlife Habitat (SWH) attributes.

The inventory and documentation of vegetation and vascular plants was undertaken through visual observations. Observations were continuously recorded and updated throughout the implementation of all components of the field survey program. Species identification focused on common as well as rare and sensitive species, SAR and invasive/non-native plants.

2.1.1 Results

The following table was provided by MNRF (Table 2-1). However, it is important to note no SAR species were detected during surveys within the study area.

Table 2-1:Review of Species at Risk in the Town of Marathon

Species	Status	Town of Marathon
Threatened and Endangered Species		
Woodland Caribou	THR	Observations (recent) within municipal boundary
Eastern Whip-poor-will	THR	Possible breeding
American White Pelican	THR	Rare observations, no known breeding
Barn Swallow	THR	Breeding suspected – highly likely
Lake Sturgeon	THR	Occurs in Pic Rover
Eastern Cougar	THR	Unconfirmed observations
Little Brown Bat	END	Confirmed in area
Northern Long-eared Bat	END	Confirmed in Area
Special Concern Species		
Canada Warbler	SC	Probable breeding. Density assumed to be low
Common Nighthawk	SC	Found in the ares but locations unknown
Monarch Butterfly	SC	Observed in area
Golder-winged Warblar	SC	Possible breeding
Peregrine Falcon	SC	Nest within Municipal boundary

Bald Eagle	SC	Likely nesting within Municipal boundary
Olive-sided Flycatcher	SC	Possible breeding
Northern Brook Lamprey	SC	Known to occur in tributaries to Lake Superior
Short-eared Owl	SC	Possible breeding in area
Red-headed Woodpecker	SC	Observed in area

*Species and their status change over time and this list does not preclude proponents from further screening and verification of values at the time of proposed developments or alteration.

Reference: Mcnaughton, K. 2018. Email to R. Afonso. RE: Marathon TS Expansion - Draft Meeting Minutes - May 31, 2018. June 12, 2018.

The study area is located within Ecoregion 3W and the Boreal Shield Ecozone. Landscape composition within the study area includes the TS, hydro line corridors as well as forested areas. Forested communities were largely intact and homogenous in structure and species composition. Transmission line corridors were heavily altered and maintained as more open areas through the removal of large riparian trees and woody understory brush. Evidence of cultural influences through historic reforestation efforts was also recorded in some locations.

Four (4) distinct forest communities were classified through ELC (Appendix A, Appendix B.2): B046S - Dry to Fresh, Coarse: Sparse Shrub, B050Tt - Dry to Fresh, Coarse: Pine - Black Spruce Conifer, B052Tt - Dry to Fresh, Coarse: Spruce - Fir Conifer (Appendix A, Photo 4 & 5) and B055Tt - Dry to Fresh, Coarse: Aspen - Birch Hardwood (Appendix A, Photo 6 & 7). The study area was largely comprised of Spruce -Fir Conifer ELC community (B052Tt), with the existing hydro line corridors characterized as B046S - Dry to Fresh, Coarse: Sparse Shrub ELC community (Table 2-1, Figure 2). Anthropogenic classification included the existing Marathon TS.

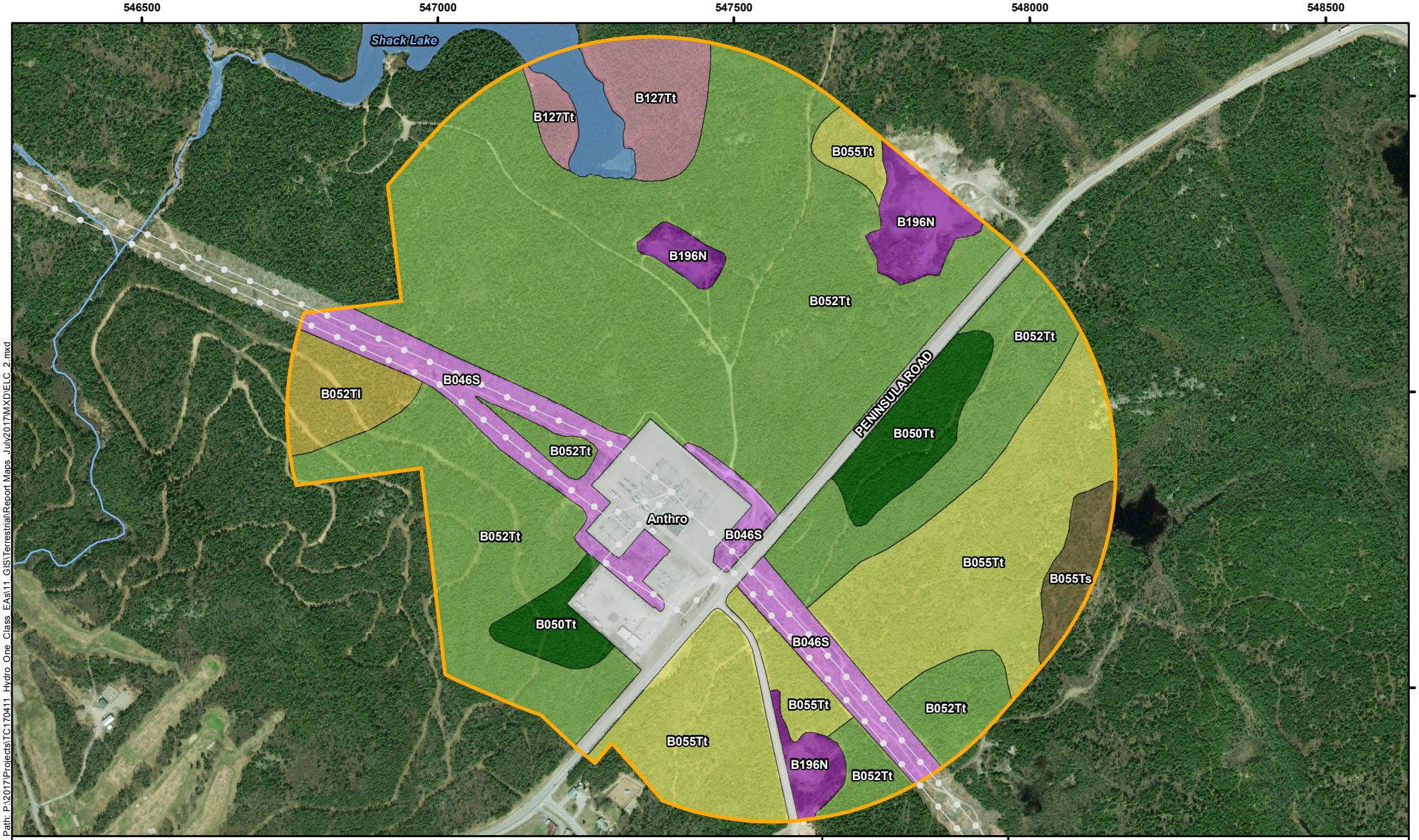
A total of 95 plants species were identified through field surveys (Table 2-3, Appendix A, Photos 8 -11). However, no rare, sensitive or SAR were recorded. Vegetation communities were largely comprised of species typical of the southern boreal forest such as White Spruce (*Picea glauca*), Black Spruce (*Picea mariana*), Balsam Fir (*Abies balsamea*), Jack Pine (*Pinus banksiana*) and White Birch (*Betula papyrifera*).

Table 2-2: Characterization of Identified ELC Communities within the Study Area

ELC Community	Description	Coverage Area (% of Study Area)
B046S - Dry to Fresh, Coarse: Sparse Shrub	*Tall and/or short shrub community, with little to no herbaceous or trees species. Ground surface is mostly broadleaf litter with mostly deep dry to fresh substrate that consists of sandy to coarse loam.*	*8.79 ha (38%)*
B050Tt - Dry to Fresh, Coarse: Pine - Black Spruce Conifer	*Conifer canopy consisting mostly of Eastern White Cedar and/or Eastern Hemlock, although Eastern Hemlocks tend to be rare. May be mixed with White Birch, White Spruce, Balsam fir, Black Spruce, Trembling Aspen, and White Pine. Understory tree species consisting of Balsam Fir and Eastern White Cedar. Shrub and herb understory are typically abundant. Ground surface mostly moss with conifer litter and broadleaf litter. Substrate consists of dry to fresh mostly deep sandy to coarse loam.*	*0.33 ha (1%)*
B052Tt - Dry to Fresh, Coarse: Spruce - Fir Conifer	*Conifer canopy consists of Tamarack and/or a mixture of other species. Shrub and herbaceous species are typically absent. Ground surface consists mostly of conifer litter with broadleaf litter and moss. Substrates are dry to fresh mostly deep sandy to coarse loam.*	*7.23 ha (31%)*
B055Tt - Dry to Fresh, Coarse: Aspen - Birch Hardwood	*Hardwood canopy consisting mostly of ash and/or white elm. Canopy may be mixed with trembling aspen, balsam fir, and balsam poplar. Shrub and herbaceous species are moderately present. Ground surface includes broadleaf litter, conifer litter, and woody debris. Substrate dry to fresh mostly deep sandy to coarse loam. This ELC community comprised an area of 0.13 ha and accounted for 1% of the study area*	*7.23 ha (31%)*
Anthropogenic	*Existing Marathon TS*	*6.58 ha (29%)*

2.1.1.1 SAR plants

Secondary source information and MNRF consultation did not identify the presence of any SAR plants within the study area. Field surveys did not reveal the presence of SAR plants within the study area.



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LEGEND

- Proposed Study Area
- Transmission Line
- Watercourse
- Waterbody

Ecological Land Classifications

- Anthropogenic
- B046S - Dry to Fresh, Coarse: Sparse Shrub
- B050Tt - Dry to Fresh, Coarse: Pine - Black Spruce Conifer
- B052Tl - Dry to Fresh, Coarse: Spruce - Fir Conifer
- B052Tt - Dry to Fresh, Coarse: Spruce - Fir Conifer
- B055Ts - Dry to Fresh, Coarse: Aspen - Birch Hardwood
- B055Tt - Dry to Fresh, Coarse: Aspen - Birch Hardwood
- B127Tt - Organic Poor Conifer Swamp
- B196N - Fine Clean Fill

NOTES:
- Background imagery from Bing.

Datum & Projection:
NAD 1983 UTM Zone 16N

0 0.1 0.2 0.4 0.6 0.8 1 Kilometres

hydro one

amec foster wheeler

MARATHON TS EXPANSION

Ecological Land Classification (ELC) Communities within the Study Area

PROJECT N°:TC170411	**FIGURE: 2**
SCALE: 1:9,000	DATE: September 2017

Table 2-3: Listing of Vegetation Species Identified in the Study Area

Common Name	Scientific Name
Trees	
American Mountain-ash	*Sorbus americana*
Balsam Fir	*Abies balsamea*
Balsam Poplar	*Populus balsamifera*
Black Spruce	*Picea mariana*
Jack Pine	*Pinus banksiana*
Mountain Maple	*Acer spicatum*
Tamarack	*Larix larcina*
Trembling Aspen	*Populus tremuloides*
White Birch	*Betula papyrifera*
White Spruce	*Picea glauca*
Shrubs	
American Elderberry	*Sambucus nigra*
Bog Birch	*Betula pumila*
Bracted Honeysuckle	*Lonicera involucrata*
Bunchberry	*Cornus canadensis*
Bush-honeysuckle	*Diervilla lonicera*
Canada Fly Honeysuckle	*Lonicera canadensis*
Green Alder	*Alnus viride*
Leatherleaf	*Chamaedaphne calyculata*
Mooseberry	*Viburnum edule*
Pine Cherry	*Prunus pennsylvanica*
Prickly Wild Rose	*Rosa acicularis*
Serviceberry species	*Amelanchier sp.*
Showy Mountain-ash	*Sorbus decora*
Skunk Currant	*Ribes glandulosa*
Small Cranberry	*Vaccinium oxycoccus*
Speckled Alder	*Alnus incana*
Sweetgale	*Myrica gale*
Willow species	*Salix sp.*
Aquatics	
Arrowhead species	*Sagittaria sp.*
Bog Buckbean	*Menyanthes trifolia*
Broad-leaved Cattail	*Typha latifolia*
Ferns	
Bracken Fern	*Pteridium aquilinum*
Evergreen Wood Fern	*Dryopteris intermedia*
Narrow Beech Fern	*Phegopteris connectilis*
Northern Lady Fern	*Athyrium filix-femina*
Northern Oak Fern	*Gymnocarpium dryopteris*
Spinulose Wood Fern	*Dryopteris carthusiana*
Forbs and Grasses	
Alsike Clover	*Trifolium hybridum*
Bladder Campion	*Silene vulgaris*
Blue Flag Iris	*Iris versicolor*
Bluebead Lily	*Clintonia borealis*
Blue-eyed Grass species	*Sisyrhynchum sp.*
Canada Goldenrod	*Solidago canadensis*
Canada Mayflower	*Maianthemum canadensis*
Common Bearberry	*Arctostaphylos uva-ursi*
Common Dandelion	*Taraxacum officinale*
Common Mullein	*Verbascum thapsus*
Common St. John's Wort	*Hypericum perforatum*
Creeping Snowberry	*Gaultheria hispidula*
Dwarf Raspberry	*Rubus pubescens*
Early Coralroot	*Corallorhiza trifida*
Early Goldenrod	*Solidago juncea*
Fireweed	*Chamaenerion angustifolia*
Ghost Pipe	*Monotropa uniflora*

Goldthread	*Coptis trifolia*
Grass species	*Poaceae sp.*
Green-flowered Pyrola	*Pyrola chlorantha*
Ground-pine	*Dendrolycopodium dendroideum*
Hairy Goldenrod	*Solidago hispida*
Hawkweed species	*Hieracium sp.*
Labrador Tea	*Rhododendron groenlandicum*
Large-leaved Aster	*Eurybia macrophylla*
Low Sweet Bluerry	*Vaccinium angustifolia*
Marsh Cinquefoil	*Comarum palustre*
One-flowered Pyrola	*Moneses uniflora*
Orange Hawkweed	*Pilosella aurantiaca*
Oxeye Daisy	*Leucanthemum vulgare*
Pearly Everlasting	*Anaphalis margaritacea*
Pink Lady's-slipper	*Cyprepedium acaule*
Purple Avens	*Geum rivale*
Purple Vetch	*Vicia cracca*
Raspberry species	*Rubus sp.*
Red Clover	*Trifolium pratense*
Round-leaved Pyrola	*Pyrola americana*
Sow Thistle species	*Sonchus sp.*
Spotted Coralroot	*Corallorhiza maculata*
Spreading Dogbane	*Apocynum androsaemifolium*
Starflower	*Trientalis borealis*
Stiff Clubmoss	*Spinulum annotinum*
Tall Buttercup	*Ranunculus acris*
Tall Goldenrod	*Solidago altissima*
Three-leaved Solomon's Seal	*Maianthemum trifolium*
Three-seeded Sedge	*Carex trisperma*
Three-toothed Cinquefoil	*Sibbaldiopsis tridentata*
Trailing Arbutus	Epigaea repens
Tussock Sedge	*Carex stricta*
Twinflower	*Linnaea borealis*
White Sweet Clover	*Melilotus albus*
Wild Sarsaparilla	*Aralia nudicaulis*
Wild Strawberry	*Fragaria virginiana*
Wood Horsetail	*Equisetum sylvaticum*
Yarrow	*Achillea millefolium*
Yellow Hop Clover	*Trifolium campestre*

2.2 Wildlife Communities

2.2.1 Mammalian Surveys

Mammalian surveys were completed primarily through incidental observations and species specific and habitat components of the Significant Wildlife Habitat (SWH) classification and mapping. Incidental observations included species identification from visual observations as well as scat and tracks.

The classification and mapping of SWH was undertaken using criteria from both the MNRF Significant Wildlife Habitat Technical Guide (2002) and associated ecoregion criterial schedule (2014).

Potential for Woodland Caribou (*Rangifer tarandus*) within the study area was identified by the MNRF as part of the initial consultation process (pers. comm. K. McNaughton). No specific or targeted surveys to confirm Woodland Caribou presence/absence were undertaken as part of this study as the Project area occurs in the Lake Superior coastal range for the species and occurrence has been confirmed.

2.2.1.1 Results

There was no evidence (scat or tracks) of Woodland Caribou within the study area. However, through a data sharing agreement with MNRF confirmed wintering and nursery areas for Caribou were revealed to occur 3 km west of the study area.

There were no records or observations of mammals within the study area during the completion of the field surveys. However, there is potential for the study area to provide habitat for numerous wildlife species. Most potentially occurring mammalian species are small, secretive and/or nocturnal. These species are difficult to detect using standard, non-invasive methods. Probable wildlife occurrences based on secondary source information and characteristics of the study area include: Black Bear (*Ursus americanus*), Moose (*Alces alces*), Grey Wolf (*Canis lupus*), Porcupine (*Erethizon dorsatum*), White-tailed Deer (*Odocoileus virginianus*), Red Fox (*Vulpes vulpes*), Racoon (*Procyon lotor*), American Marten (*Martes americana*), Fisher (*Martes pennant*) and various small mammal species such as mice, voles and shrews.

2.2.1.2 SAR mammals

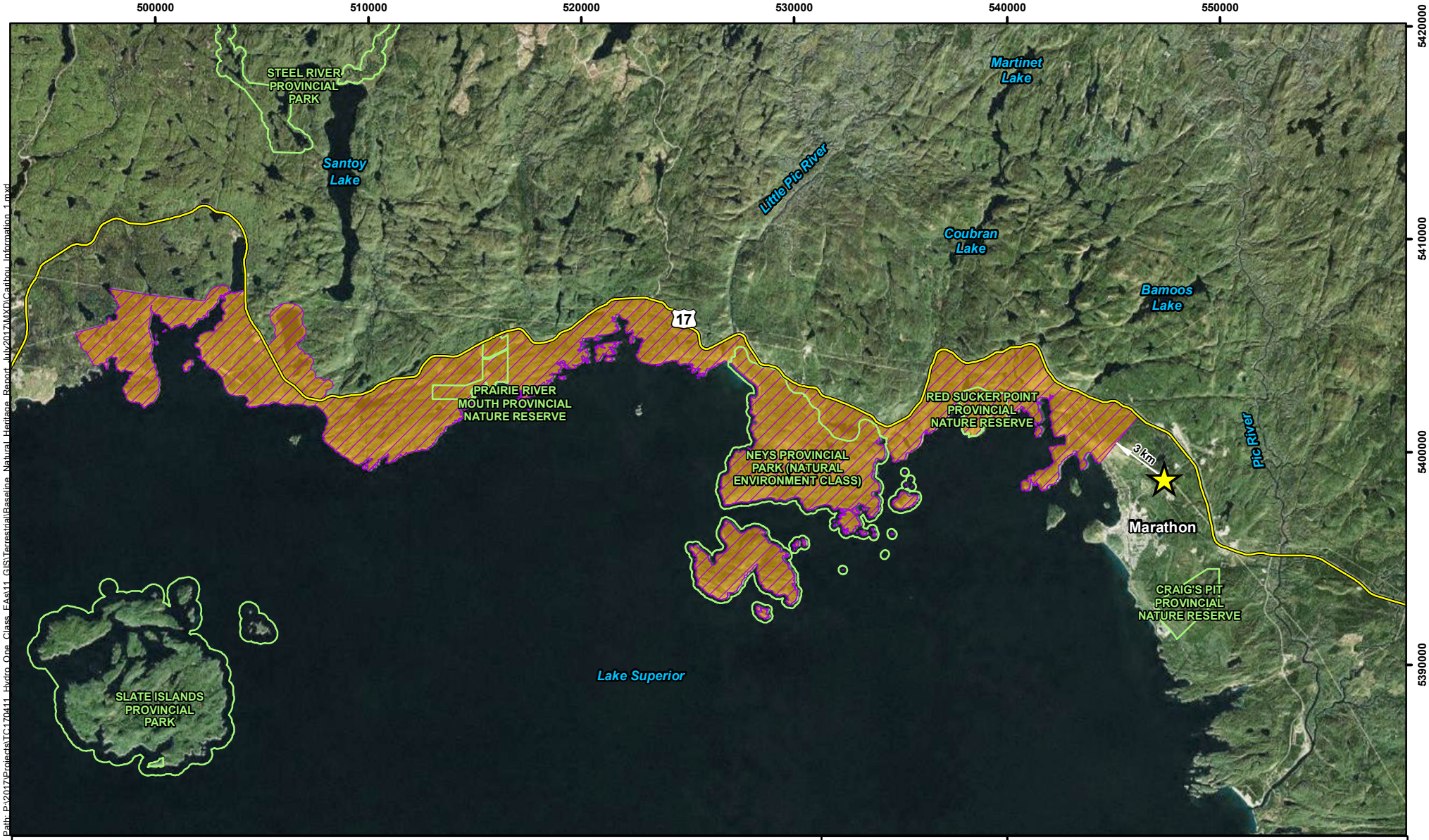
Woodland Caribou are provincially and federally designated as Threatened under the provincial *Endangered Species Act* (*ESA*, 2007) and federal *Species at Risk Act* (*SARA*, 2002). The study area is located within the Lake Superior Range for Woodland Caribou (MNRF 2014a). This range is considered separately from other ranges in Ontario in that the Range Management Policy does not apply (MNRF 2014b).

Woodland Caribou habitat is regulated under Section 10 of the *ESA* and consultation and/or approvals through MNRF must be sought for Projects impacting habitat. At the broad landscape scale, Woodland Caribou require large, undisturbed areas of mature conifer upland forest and lowlands dominated by Jack Pine or Black Spruce (Brown *et al*. 2003; Ferguson and Elkie 2004). These areas allow Caribou to effectively separate themselves from higher densities of Moose and predators such as Grey Wolf. At more local scales, Woodland Caribou seasonally select specific habitat features and areas that support successful reproduction and calf rearing, provide summer and/or winter forage or facilitate movement between discrete areas of use. These sub-range habitat features and high use areas often exhibit repeated intensive use by Caribou such as nursery and calving areas, winter use areas and travel corridors over multiple years (MNRF 2014, Hazell and Taylor 2011). Confirmed wintering and nursery areas for Caribou occur outside of the study area starting approximately 3 km west of the site and extending along the Lake Superior coast in areas within and adjacent to Neys Provincial Park, Red Suckerpoint Provincial Nature Reserve and Prairie River Mouth Nature Reserve (Figure 3).

Nursery Areas are selected by adult female Caribou immediately prior to parturition and thereafter to raise their calves during the spring, summer and early fall. These features are typically comprised of lakes and wetland complexes dominated by fens and bogs, particularly those interspersed with upland islands and peninsulas (Carr et al. 2011). MNRF has delineated nursery areas based on animal observations from May 1 to September 15 to include calving and post calving behavior. The calving season occurs from May 1– July 15th, with the peak estimated to occur around June 1 in northwest Ontario (MNRF 2013). Post-calving season occurs from July 15 to November 14 (Ferguson and Elkie 2004). Calves are particularly vulnerable to mortality during the first 50 days following birth, predominantly by predation (Pinard et al. 2012).

Wintering Areas are typically associated with soil and forest cover conditions that provide abundant ground lichen for winter forage and tend to have lower average snow depths that may facilitate easier movement (Stardom 1975). MNRF has used Caribou locations from December 1 to March 31 to inform the delineation of Winter Use Area boundaries. Caribou aggregate in higher concentrations (6-50 per group) during the winter to take advantage of these features, which may allow individuals to minimize energy expenditure, forage more efficiently or minimize individual risk of predation (Stardom 1975). The location and amount of area individual caribou use during the winter varies widely across Ontario, and individual fidelity to specific Winter Use Areas is generally less than for Nursery Areas (Cumming et al. 1996; Ferguson and Elkie 2004; Hazell and Taylor 2011).

Bat habitat was assessed as part of the Significant Wildlife Habitat surveys. A few mature mixed forest stands within the study were identified, however, they present a low potential for high quality bat habitat, as decay is minimal with very limited tree cavities and snags. Stands were largely comprised of mid-aged coniferous species. No caves or buildings were recorded within the study area.



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LEGEND

- Site Location
- Caribou Wintering Area
- Caribou Nursery Area
- Provinical Parks
- Highway

NOTES:
- Background topo extracted from ESRI.

Datum & Projection:
NAD 1983 UTM Zone 16N

0 2.5 5 10 15 20 Kilometres

hydro one

amec foster wheeler

MARATHON TS EXPANSION

Distribution of Woodland Caribou Habitat in Relation to the Project

PROJECT N°: TC170411	**FIGURE: 3**
SCALE: 1:250,000	DATE: October 2017

2.2.2 Avian Surveys

Breeding bird surveys were undertaken at four (4) point count stations (BB9, BB10, BB14 & BB15; Figure 4) following the protocols as described in the Ontario Breeding Bird Atlas Guide for Participants (2001) and the Atlas of Breeding Birds of Ontario (Cadman, et. al, 2007). Surveys included morning point counts within representative habitats of the study area. Surveys were conducted between 6:30 a.m. and 8:30 a.m. in the morning to capture the period of maximum bird song activity. Each station consisted of a circle with a 100-m radius from the center point (the location of the observer). All birds heard or observed were recorded at intervals of 0 - 50 m, 50 - 100 m, >100 m and flyovers (birds seen flying overhead). Each point count was ten (10) minutes in duration. Birds were recorded at intervals of 0 - 3 minutes, 3 - 5 minutes and 5 - 10 minutes. Species were identified through their unique vocalizations and by visual observations. Each bird was recorded once and mapped on the field data sheets to ensure no duplication of individual birds. All bird surveys were undertaken in good weather with warm temperatures, no precipitation, and little or no wind. All observations were recorded on Breeding Bird Survey (BBS) field forms (Appendix B).

Evening surveys were undertaken to identify the potential presence of Eastern Whip-poor-will (*Caprimulgus vociferus*) and Common Nighthawk (*Chordeiles minor*). Eastern Whip-poor-will is listed as endangered and is protected under the ESA (2007). Common Nighthawk is listed as Special Concern and not protected under the ESA (2007). Crepuscular bird surveys were undertaken in general accordance with the protocols described by the Draft Canadian Night Jar Protocol (Bird Studies Canada, 2016). These protocols require surveys be conducted 30 minutes after sunset, twice during the breeding season, when moon conditions are at least 50% illumination (generally considered optimal) and weather conditions are optimal for detecting crepuscular birds (e.g., little cloud cover, low wind and no precipitation). As Common Nighthawk activity begins within 30 minutes of sunset, surveys were initiated no earlier than 30 minutes prior to sunset and completed 90 minutes after sunset. The surveys were conducted on dates where the moon was near or greater than 50% illumination as recommended, and weather conditions were optimal for detecting crepuscular birds. Surveys involved listening for calling birds which can be detected from several hundred metres away. Point count surveys were aborted or postponed if weather conditions were not optimal. Crepuscular bird surveys were conducted for 6 minutes at each station and consisted of recording birds at intervals of 0 to 200 m, 200 to 400 m and greater than 400 m.

2.2.2.1 Results

Of the 89-species identified through secondary source information (OBBA, 2017; Appendix C) ,37 species were identified during the completion of the field survey program (Table 2-4). Common species identified were typical of boreal forests and include White-throated Sparrow (*Zonotrichia albicollis*), Winter Wren (*Troglodytes hiemalis*), Red-eyed Vireo (*Vireo olivaceus*), Nashville Warbler (*Oreothlypis ruficapilla*), Black-throated Green Warbler (*Setophaga virens*), Pine Siskin (*Spinus pinus*) and White-winged Crossbill (*Loxia leucoptera*). Table 4 provides a listing of all species identified during the completion of the breeding bird field survey program.

2.2.2.2 Avian SAR

No protected avian SAR, including Whip-poor-will and Common Nighthawk, were detected during surveys. Discussions were held with MNRF to determine the potential for Whip-poor-will within the study area at the onset of the project. Field surveys did not reveal the presence of high quality habitat for this species or Common Nighthawk within the study area. However, the Evening Grosbeak (*Coccothraustes vespertinus*), a species of Special Concern as listed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), was recorded near point count station BB10 (Figure 3). This species will not have protection under *SARA* (2002) until the COSEWIC recommendation is accepted by the federal government.

Table 2-4: Listing of Avian Species Identified in the Study Area during Breeding Bird Surveys

Common Name	Scientific Name
American Crow	*Corvus brachyrhynchos*
American Redstart	*Setophaga ruticilla*
American Robin	*Turdus migratorius*
American Three-toed Woodpecker	*Picoides dorsalis*
Bay-breasted Warbler	*Setophaga castanea*
Belted Kingfisher	*Megaceryle alcyon*
Blackburnian Warbler	*Setophaga fusca*
Black-throated Green Warbler	*Setophaga virens*
Brown Creeper	*Certhia americana*
Cedar Waxwing	*Bombycilla cedrorum*
Chipping Sparrow	*Spizella passerina*
Common Loon	*Gavia immer*
Common Raven	*Corvus corax*
Common Yellowthroat	*Geothlypis trichas*
Dark-eyed Junco	*Junco hyemalis*
Evening Grosbeak	*Coccothraustes vespertinus*
Golden-crowned Kinglet	*Regulus satrapa*
Herring Gull	*Larus argentatus*
Magnolia Warbler	*Setophaga magnolia*
Mourning Warbler	*Geothlypis philadelphia*
Nashville Warbler	*Oreothlypis ruficapilla*
Ovenbird	*Seiurus aurocapilla*
Pileated Woodpecker	*Dryocopus pileatus*
Pine Siskin	*Spinus pinus*
Purple Finch	*Haemorhous purpureus*
Red-breasted Nuthatch	*Sitta canadensis*
Red-eyed Vireo	*Vireo olivaceus*
Ruby-crowned Kinglet	*Regulus calendula*
Sandhill Crane	*Grus canadensis*
Savannah Sparrow	*Passerculus sandwichensis*
Swainson's Thrush	*Catharus ustulatus*
Swamp Sparrow	*Melospiza georgiana*
Tree Swallow	*Tachycineta bicolor*
White-throated Sparrow	*Zonotrichia albicollis*
White-winged Crossbill	*Loxia leucoptera*
Winter Wren	*Troglodytes hiemalis*
Yellow-rumped Warbler	*Setophaga coronata*

2.2.3 Amphibian Surveys

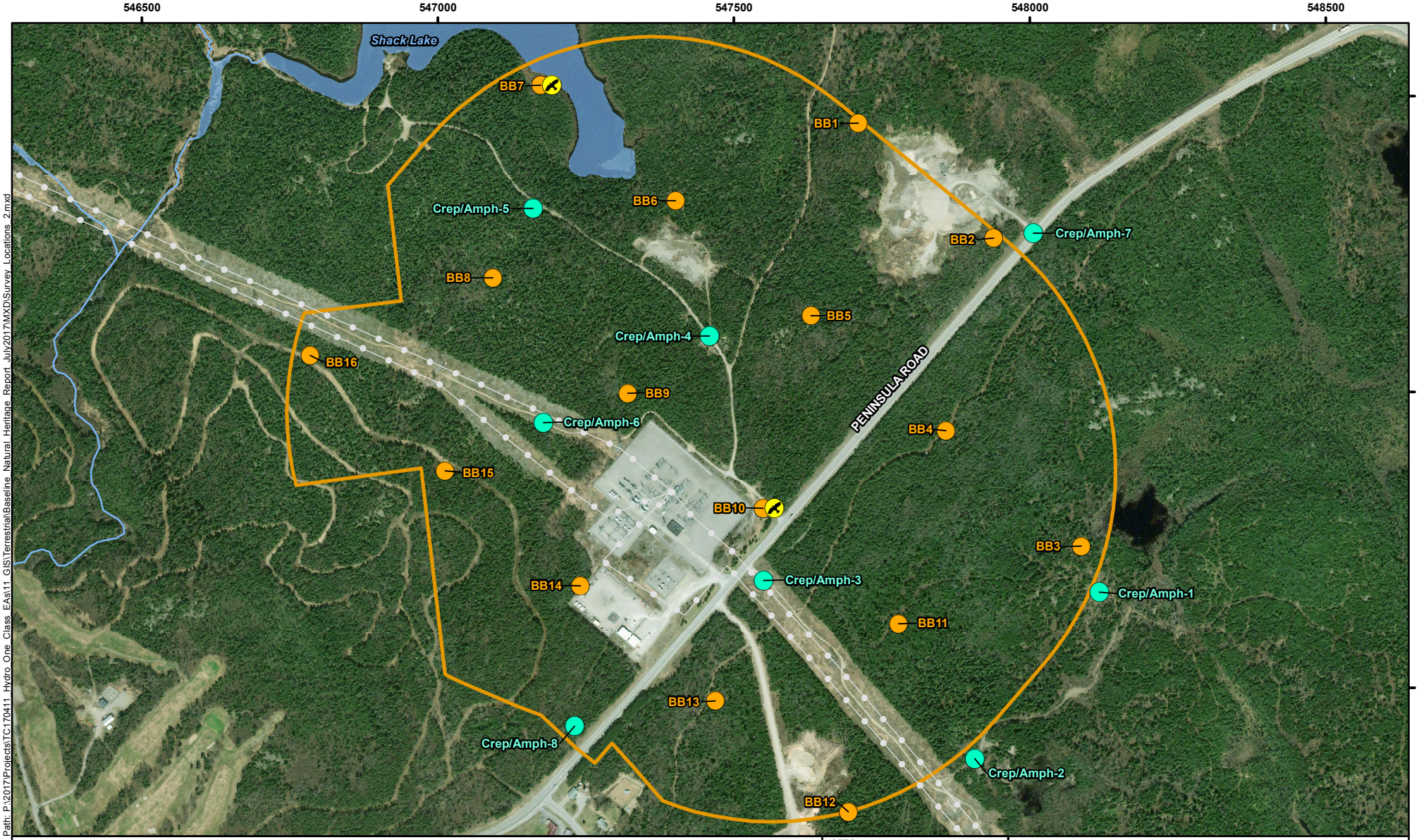
Crepuscular amphibian call surveys were undertaken in areas identified as potentially suitable amphibian habitat (i.e. vernal pools, wetlands, etc.) through the SWH surveys and available secondary source mapping. Species were identified by their unique vocalizations or by direct observation. Surveys were undertaken at two (2) locations within the study area (Figure 4). Surveys lasted for 10-minutes with all species recorded during that interval.

2.2.3.1 Results

A review of the ORAA map indicated four (4) species of reptiles and amphibians have been observed within the natural heritage square that encompasses the study area (Ontario Nature 2017). Identified species include Western Painted Turtle (*Chrysemys picta*), Wood Frog (*Lithobates sylvaticus*), Spring Peeper (*Pseudacris crucifer*), Boreal Chorus Frog (*Pseudacris maculata*). It is important to note that the exact locations of these species records are not available through the ORAA and are instead recorded from the one (1) 10 x 10 km squares encompassing the study area (16EU49). Consequently, it is not certain that these species are present within the more focused study area surrounding the Marathon TS.

No anuran (frog and toad) or retiles species were documented during the targeted evening surveys. Visual observations and vocalizations were however documented during the completion of other diurnal components of the field survey program. Identified species included American Toad (*Anaxyrus americanus*), Wood Frog, Mink Frog (*Lithobates septentrionalis*) and Green Frog (*Rana clamitans*).

Amphibians were not detected in areas identified as potential breeding habitats. Incidental observations of amphibians recorded during diurnal surveys are considered to be migrants and not dependent on the available habitat within the study area to carry out any critical life process.



Path: P:\2017\Projects\TC170411_Hydro_One_Class_EAs\11_GIS\Terrestrial\Baseline_Natural_Heritage_Report_July2017\MXD\Survey_Locations_2.mxd

LEGEND

- BB# — Breeding Bird Survey Locations
- Crep/Amph-# — Crepuscular and Amphibian Survey Locations
- Evidence of Evening Grosbeak
- Proposed Study Area
- Transmission Line

NOTES:
- Background imagery from Bing.

0 0.1 0.2 0.4 0.6 0.8 1 Kilometres

Datum & Projection: NAD 1983 UTM Zone 16N

hydro one

amec foster wheeler

MARATHON TS EXPANSION

Breeding Bird and Amphibian Survey Locations within the Study Area

PROJECT N°:TC170411 | **FIGURE: 4**

SCALE: 1:9,000 | DATE: September 2017

2.2.4 Significant Wildlife Habitat

Potential areas of SWH were identified on site utilizing the MNRF Significant Wildlife Habitat Technical Guide cross referenced with delineated ELC ecosites. The following table identifies potential SWH and provide a rationalization for its presence/absence within the study area as well as its relative significance (Table 3). Species specific surveys were not undertaken as part of this field survey program and as such the rationalization of SWH within the study area relies on the ELC ecosite delineation and wildlife knowledge of the regional southern boreal forest.

Table 3: Characterization of Significant Wildlife Habitat within the Study Area

Wildlife Habitat	Species	ELC Ecosite	Relative Significance_
Moose Late Winter Cover	Moose	B050 & B052	Potential presence within the study area as canopy cover exceeded 60 %. There was however no evidence of tracks or scat.
Bat Maternity Colonies	Big Brown Bat & Silver-haired Bat	B055	Mature forested stands within the study were identified however there is low potential for habitat as decay is minimal and limited tree cavities and snags and no caves or buildings were identified.
Colonially Nesting Bird Breeding Habitat (Tree/Shrubs)	Great Blue Heron Bonaparte's Gull Double-crested Cormorant	B046, B050, B052 & B055	No evidence of these species or their nests within the study area.
Woodland Raptor Nesting Habitat	Red-tailed Hawk, Great Horned Owl, Broad-winged Hawk, Sharp-shinned Hawk, Merlin, Coopers Hawk, Northern Goshawk, Great Gray Owl, Long-eared Owl, Common Raven, Saw-whet Owl, Boreal Owl, Barred Owl and Northern Hawk Owl	B046, B050, B052 and B055	Potential presence within the study area. No specific tree cavities or stick nests were identified.

3.0 SUMMARY OF OBSERVATIONS

The following provides a summary of the results of the field survey program initiated for the proposed Marathon TS expansion.

- The study area was comprised of dry mixed and/or coniferous forest types. Communities were largely comprised of species typical of the Southern Boreal Forest. Vegetation diversity was low and there were no observed plant SAR or provincially rare species.
- SWH was limited to a few snags located in older portions of forest stands. Dead standing trees in the study area can provide nesting and denning habitats for birds and mammals.
- Birds observed were typical of boreal forest species and included White-throated Sparrow, Winter Wren, Red-eyed Vireo, Nashville Warbler, Black-throated Green Warbler, Pine Siskin and White-winged Crossbill.
- No protected SAR bird species were detected. Impacts to Whip-poor-will habitat are not anticipated to result from the project. Impacts to birds will be mitigated through timing restrictions for vegetation clearing/removal. Should Whip-poor-will or any other SAR be detected on site, MNRF will be immediately notified to discuss any ESA approvals that may be required.
- Evening Grosbeak was detected. This species was recently designated as Special Concern by COSEWIC, however the federal government has not yet formally accepted this designation and therefore currently this species does not have protection under SARA (2002)
- No amphibians were heard during evening surveys. However, American Toad, Wood Frog, Mink Frog and Green Frog were observed and heard on site during the day. These individuals are considered to be migrants and not dependent on the available habitat within the study area to carry out any critical life process.
- No reptiles were detected during the surveys.
- Confirmed wintering and nursery areas for Caribou occur outside of the study area starting approximately 3 km west of the site and extending along the Lake Superior coast in areas within and adjacent to Neys Provincial Park, Red Suckerpoint Provincial Nature Reserve and Prairie River Mouth Nature Reserve.
- Impacts to bats are not anticipated, any potential effects to bats will be mitigated through timing restrictions for vegetation clearing/removal to avoid sensitive periods for bats from May 15th to August 31st. Should SAR bats be detected on site, MNRF will be immediately notified to discuss any ESA approvals that may be required.

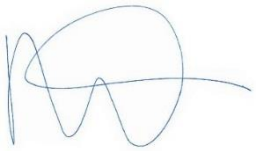
4.0 CLOSURE

We trust that this technical memorandum provides a level of detail and technical expertise to meet the requirements of the Class Environmental Assessment for Minor Transmission Facilities (Hydro One, 2016) and the Ontario *Environmental Assessment Act*. We further trust that the information provided will be sufficient for inclusion in the ESR document for the proposed expansion of the Marathon TS and that it will inform future conservation and planning initiatives for this project.

If you require further information regarding the above, please contact Megan Hazell, at (905) 568-2929 or megan.hazell@amecfw.com. Thank you for the opportunity to be of service to Hydro One.

Sincerely,
Amec Foster Wheeler Environment & Infrastructure
a Division of Amec Foster Wheeler Americas Limited

Prepared by:



Megan Hazell, M.Sc.
Senior Biologist
Wildlife Discipline Lead

Reviewed by:

Bradley Dufour, M.Sc.
Senior Environmental Specialist
Project Manager

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APPENDIX A – Photographic Record

Photo 1: Existing Marathon TS, looking west from the entrance of Shack Lake access trail at Peninsula Road. July 9, 2017.

Photo 2: Shack Lake access trail at Peninsula Road, looking north. July 9, 2017.

Photo 3: Typical characterization of the Shack Lake access trail, looking north. July 9, 2017.

Photo 4: Typical characterization of ELC Community B052Tt - Dry to Fresh, Coarse: Spruce - Fir Conifer. July 9, 2017.

Photo 5: Typical characterization of ELC Community B052Tt - Dry to Fresh, Coarse: Spruce - Fir Conifer. July 9, 2017.

Photo 6: Typical characterization of ELC Community B055Tt - Dry to Fresh, Coarse: Aspen - Birch Hardwood. July 9, 2017.

Photo 7: Typical characterization of ELC Community B055Tt - Dry to Fresh, Coarse: Aspen - Birch Hardwood. July 9, 2017.

Photo 8: Evergreen Wood Fern (*Dryopteris intermedia*). July 9, 2017.

Photo 9: Green-flowered Pyrola (*Pyrola chlorantha*). July 9, 2017.

Photo 10: Pink Lady's Slipper (*Cyprepedium acaule*). July 9, 2017.

Photo 11: Spotted Coralroot (*Corallorhiza maculata*). July 9, 2017.

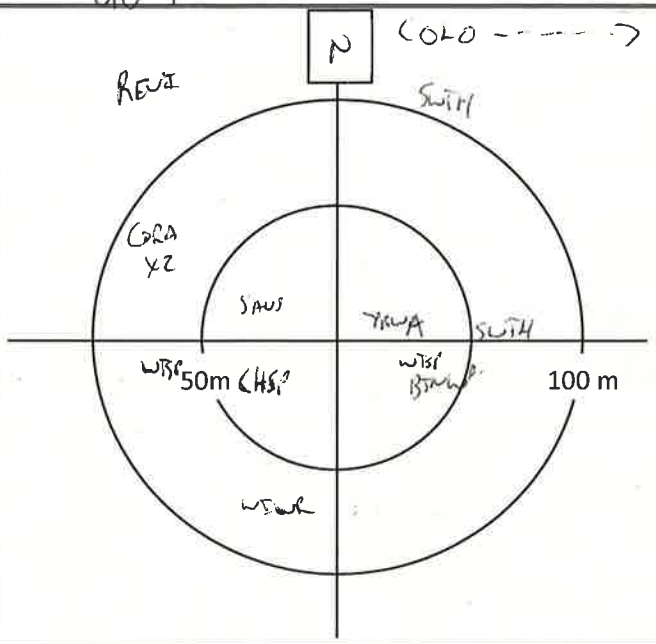
APPENDIX B –Ecological Land Classification (ELC) & Breeding Bird Survey (BBS) Field Forms

Breeding Bird Survey Form

amec foster wheeler
Amec Foster Wheeler
160 Traders Blvd East,
Mississauga, ON L4Z 3K7
Tel: (905) 568-2929

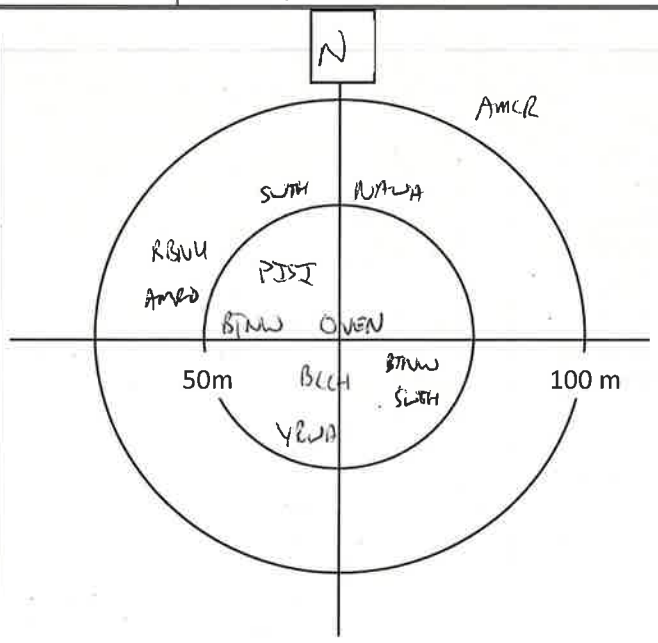
Project Name: Hydro One	Project Number:	Observers: DAC	Date: Jul 8	Round: 1
Point Count #: BBID	UTM:		Primary Habitat:	Modifier:
Cloud: 5	Temp (°C): 10	Wind: 1	Precip: 0	Start (24hr): 610	Secondary Habitat:	Modifier:

Species	<50 m			50-100 m			>100 m			Breeding Evidence
	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	
CORA				11						
YRWA	1									
WTSP	1			1						
REVI							1			
SWTH				1			1			
SAVS			1							
BTNW			1			1				
CHSP			1							
COLO									1	FO
WIWA						1				



Project Name: Hydro One	Project Number:	Observers: DAC	Date: Jul 8	Round: 1
Point Count #: BBS	UTM:		Primary Habitat:	Modifier:
Cloud: 0	Temp (°C): 11	Wind: 1	Precip: 0	Start (24hr): 626	Secondary Habitat:	Modifier:

Species	<50 m			50-100 m			>100 m			Breeding Evidence
	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	
RBNU				1						
BLCH	1									
AMCR				4			1			
SWTH	1			1						
NAWA				1						
BTNW	11									
YRWA	1									
PISI	1									FO
OVEN										
AMRO					1					



Weather:

Wind Scale: 0 – Calm, 1 – Light Air, 2 – Light Breeze, 3 – Gentle Breeze	**Precipitation Scale:** 0 – None, 1 – Haze/Fog, 2 – Drizzle, 3 - Rain

Habitat:

1. Poplar Forest	6. Spruce Forest	11. Coniferous Treed Swamp	16. Shrub Bog/Poor Fen	21. Hay Crop	**Modifiers:**
2. Poplar–Birch Forest	7. Jack Pine–Spruce Forest	12. Shrub/Thicket Swamp	17. Open Bog/Fen	22. Clearcut	1. Plantation
3. Poplar–Spruce Forest	8. Jack Pine Forest	13. Sedge/Meadow Marsh	18. Open Shrubland	23. Roadside	2. Regenerating/Young
4. Poplar–Jack Pine Forest	9. Deciduous Treed Swamp	14. Cattail/Open Water Marsh	19. Dense Shrubland	24. Open Cut-Line	3. Mid-aged
5. Birch–Spruce Forest	10. Mixed Treed Swamp	15. Treed Bog/Fen	20. Pasture	25. Cultural	4. Mature

Breeding Evidence

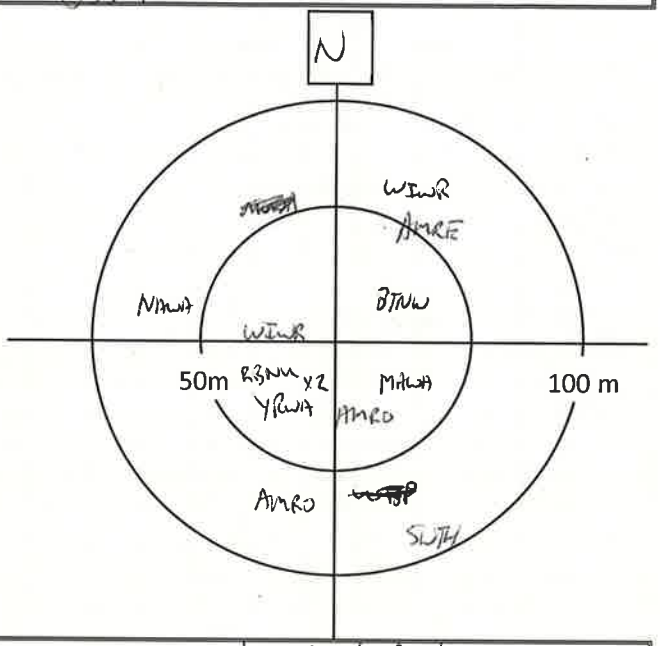
Observed (OB)		Probable (PR)		Confirmed (CO)			
X	Species Observed	P	Pair Observed	A	Aggressive Behaviour	DD	Distraction Display	FS	Carrying Fecal Sac
Possible (PO)		T	Territory	N	Nest	NU	Used Nest	CF	Carrying Food
H	Suitable Habitat	D	Courtship or Display	V	Visiting Probable Nest Site	FY	Feeding Young	NE	Nest With Eggs
S	Male Singing					AE	Adults Entering or Leaving Nest	NY	Nest With Young

Breeding Bird Survey Form

amec foster wheeler
Amec Foster Wheeler
160 Traders Blvd East,
Mississauga, ON L4Z 3K7
Tel: (905) 568-2929

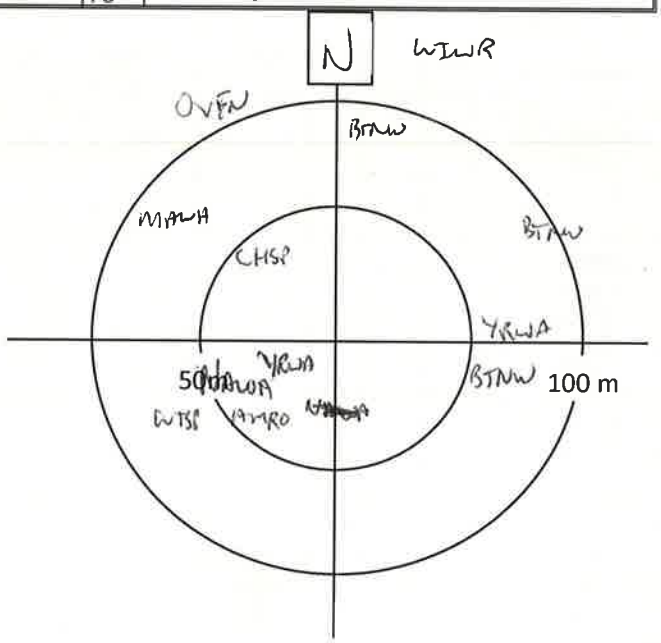
Project Name:	Hydro One	Project Number:		Observers:	DAC	Date:	Jul 8	Round:	1
Point Count #:	BB1	UTM:				Primary Habitat:	5	Modifier:	
Cloud:	0	Temp (°C):	13	Wind:	1	Precip:	0	Start (24hr):	653	Secondary Habitat:		Modifier:	

Species	<50 m			50-100 m			>100 m			Breeding Evidence
	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	
RBNU	1									
AMRO	1			1						
WIWR	1			1						
AMRE	1									
MAWA	1									
BTNW	1									
YRWA	1									
SWTH					1					
NAWA						1				



Project Name:	HO	Project Number:		Observers:	DAC	Date:	Jul 8	Round:	1
Point Count #:	BB2	UTM:				Primary Habitat:	2	Modifier:	5
Cloud:	0	Temp (°C):	13	Wind:	1	Precip:	0	Start (24hr):	710	Secondary Habitat:		Modifier:	

Species	<50 m			50-100 m			>100 m			Breeding Evidence
	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	
AMRO	1									
OVEN								1		
MAWA				1						
BTNW				111						
YRWA			1	1						
CHSP	1									
WISP				1						
WIWR								1		
NAWA			1							



Weather:

Wind Scale:	0 – Calm, 1 – Light Air, 2 – Light Breeze, 3 – Gentle Breeze	Precipitation Scale:	0 – None, 1 – Haze/Fog, 2 – Drizzle, 3 - Rain

Habitat:

1. Poplar Forest	6. Spruce Forest	11. Coniferous Treed Swamp	16. Shrub Bog/Poor Fen	21. Hay Crop	**Modifiers:**
2. Poplar–Birch Forest	7. Jack Pine–Spruce Forest	12. Shrub/Thicket Swamp	17. Open Bog/Fen	22. Clearcut	1. Plantation
3. Poplar–Spruce Forest	8. Jack Pine Forest	13. Sedge/Meadow Marsh	18. Open Shrubland	23. Roadside	2. Regenerating/Young
4. Poplar–Jack Pine Forest	9. Deciduous Treed Swamp	14. Cattail/Open Water Marsh	19. Dense Shrubland	24. Open Cut-Line	3. Mid-aged
5. Birch–Spruce Forest	10. Mixed Treed Swamp	15. Treed Bog/Fen	20. Pasture	25. Cultural	4. Mature

Breeding Evidence

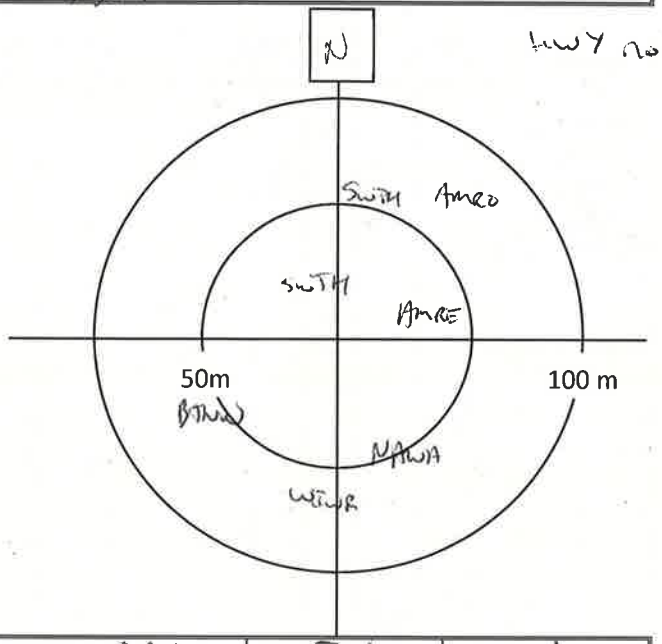
Observed (OB)		Probable (PR)		Confirmed (CO)			
X	Species Observed	P	Pair Observed	A	Aggressive Behaviour	DD	Distraction Display	FS	Carrying Fecal Sac
Possible (PO)		T	Territory	N	Nest	NU	Used Nest	CF	Carrying Food
H	Suitable Habitat	D	Courtship or Display	V	Visiting Probable Nest Site	FY	Feeding Young	NE	Nest With Eggs
S	Male Singing					AE	Adults Entering or Leaving Nest	NY	Nest With Young

Breeding Bird Survey Form

amec foster wheeler
Amec Foster Wheeler
160 Traders Blvd East,
Mississauga, ON L4Z 3K7
Tel: (905) 568-2929

Project Name:	Hydro One	Project Number:		Observers: DAE	Date: Jul 8	Round: 1
Point Count #:	BB4	UTM:			Primary Habitat:	Modifier:
Cloud: 0	Temp (°C): 13	Wind: 1	Precip: 0	Start (24hr): 730	Secondary Habitat:	Modifier:

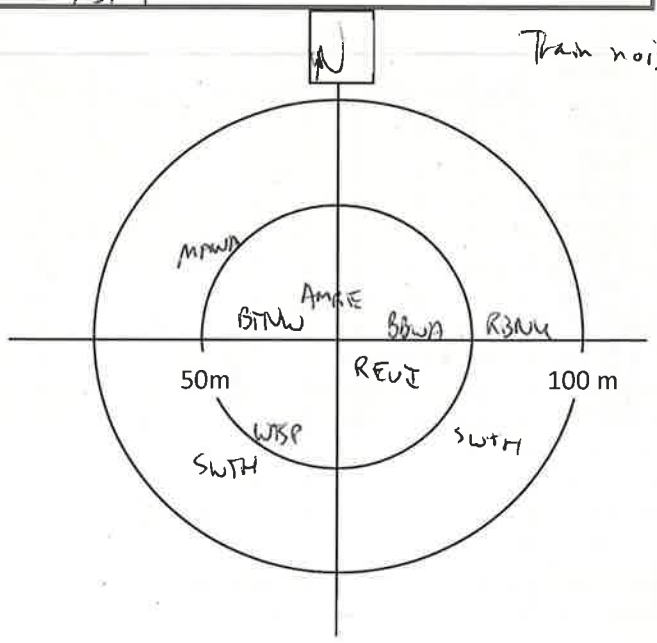
Species	<50 m			50-100 m			>100 m			Breeding Evidence
	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	
WIWR				1						
SWTH	1			1						
AMRO				1						
NAWA				1						
AMRP	1									
BTNW				1						



HWY noise

Project Name:	Hydro One	Project Number:		Observers: DAE	Date: Jul 8	Round: 1
Point Count #:	BB3	UTM:			Primary Habitat:	Modifier:
Cloud: 0	Temp (°C): 13	Wind: 2	Precip: 0	Start (24hr): 751	Secondary Habitat:	Modifier:

Species	<50 m			50-100 m			>100 m			Breeding Evidence
	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	
REVI	1									
RBNU				1						
SWTH				11						
AMRE	1									
BTNW	1									
WISP	1									
BBWA		1								
MAWA					1					CF



Train noise

Weather:

Wind Scale:	0 – Calm, 1 – Light Air, 2 – Light Breeze, 3 – Gentle Breeze	Precipitation Scale:	0 – None, 1 – Haze/Fog, 2 – Drizzle, 3 - Rain

Habitat:

1. Poplar Forest	6. Spruce Forest	11. Coniferous Treed Swamp	16. Shrub Bog/Poor Fen	21. Hay Crop	**Modifiers:**
2. Poplar–Birch Forest	7. Jack Pine–Spruce Forest	12. Shrub/Thicket Swamp	17. Open Bog/Fen	22. Clearcut	1. Plantation
3. Poplar–Spruce Forest	8. Jack Pine Forest	13. Sedge/Meadow Marsh	18. Open Shrubland	23. Roadside	2. Regenerating/Young
4. Poplar–Jack Pine Forest	9. Deciduous Treed Swamp	14. Cattail/Open Water Marsh	19. Dense Shrubland	24. Open Cut-Line	3. Mid-aged
5. Birch–Spruce Forest	10. Mixed Treed Swamp	15. Treed Bog/Fen	20. Pasture	25. Cultural	4. Mature

Breeding Evidence

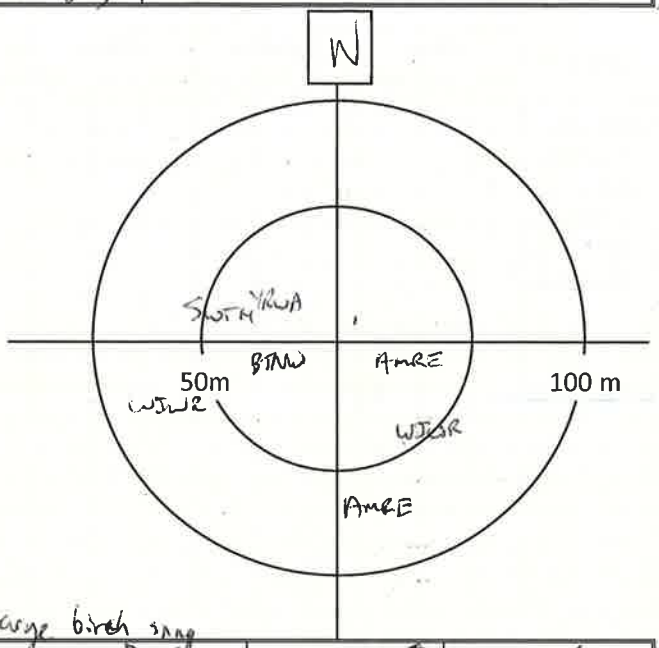
Observed (OB)		Probable (PR)				Confirmed (CO)			
X	Species Observed	P	Pair Observed	A	Aggressive Behaviour	DD	Distraction Display	FS	Carrying Fecal Sac
Possible (PO)		T	Territory	N	Nest	NU	Used Nest	CF	Carrying Food
H	Suitable Habitat	D	Courtship or Display	V	Visiting Probable Nest Site	FY	Feeding Young	NE	Nest With Eggs
S	Male Singing					AE	Adults Entering or Leaving Nest	NY	Nest With Young

Breeding Bird Survey Form

amec foster wheeler
Amec Foster Wheeler
160 Traders Blvd East,
Mississauga, ON L4Z 3K7
Tel: (905) 568-2929

Project Name:	Hydro One	Project Number:		Observers:	DAC	Date:	Jul 8	Round:	1
Point Count #:	BB11	UTM:				Primary Habitat:	Fir regen	Modifier:	
Cloud:	0	Temp (°C): 13	Wind: 1	Precip: 0	Start (24hr): 815	Secondary Habitat:		Modifier:	

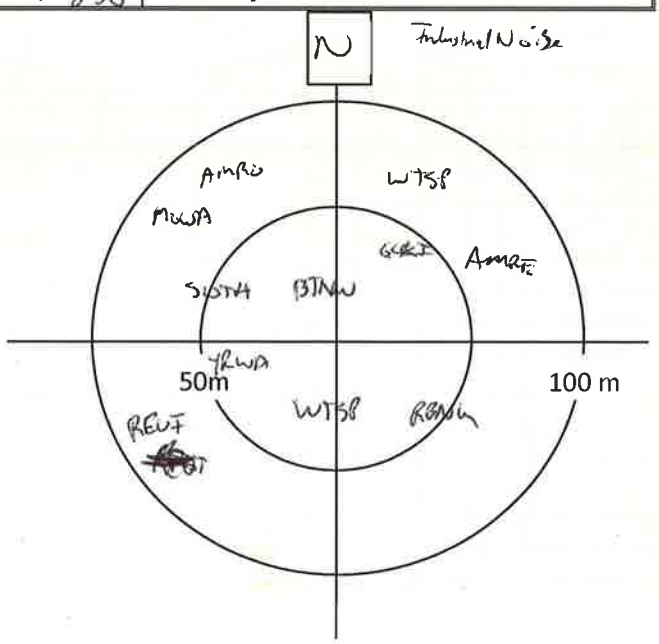
Species	<50 m			50-100 m			>100 m			Breeding Evidence
	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	
WIWR	1				1					
SWTH	1									
AmRE	1				1					
YRWA	1									
BTNW	1									



Very large birch snag

Project Name:		Project Number:		Observers:	DAC	Date:	Jul 8	Round:	2
Point Count #:	BB12	UTM:				Primary Habitat:	6	Modifier:	3
Cloud:	0	Temp (°C): 13	Wind: 1	Precip: 0	Start (24hr): 836	Secondary Habitat:		Modifier:	

Species	<50 m			50-100 m			>100 m			Breeding Evidence
	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	
GCKI	1									
SWTH	1									
AmRo				1						
MOWA				1						
AMRE				1						
YRWA	1									
WTSP			1	1						
BTNW		1								
RBNU			1			1				
REVI						1				



Weather:

Wind Scale:	0 – Calm, 1 – Light Air, 2 – Light Breeze, 3 – Gentle Breeze	Precipitation Scale:	0 – None, 1 – Haze/Fog, 2 – Drizzle, 3 - Rain

Habitat:

1. Poplar Forest	6. Spruce Forest	11. Coniferous Treed Swamp	16. Shrub Bog/Poor Fen	21. Hay Crop	**Modifiers:**
2. Poplar–Birch Forest	7. Jack Pine–Spruce Forest	12. Shrub/Thicket Swamp	17. Open Bog/Fen	22. Clearcut	1. Plantation
3. Poplar–Spruce Forest	8. Jack Pine Forest	13. Sedge/Meadow Marsh	18. Open Shrubland	23. Roadside	2. Regenerating/Young
4. Poplar–Jack Pine Forest	9. Deciduous Treed Swamp	14. Cattail/Open Water Marsh	19. Dense Shrubland	24. Open Cut-Line	3. Mid-aged
5. Birch–Spruce Forest	10. Mixed Treed Swamp	15. Treed Bog/Fen	20. Pasture	25. Cultural	4. Mature

Breeding Evidence

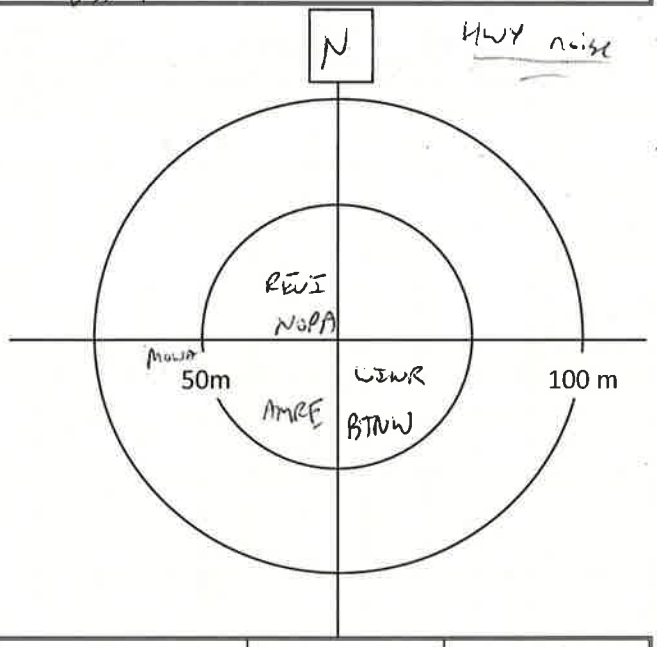
Observed (OB)		Probable (PR)			Confirmed (CO)			
X	Species Observed	P	Pair Observed	A	Aggressive Behaviour	DD	Distraction Display	FS	Carrying Fecal Sac
Possible (PO)		T	Territory	N	Nest	NU	Used Nest	CF	Carrying Food
H	Suitable Habitat	D	Courtship or Display	V	Visiting Probable Nest Site	FY	Feeding Young	NE	Nest With Eggs
S	Male Singing					AE	Adults Entering or Leaving Nest	NY	Nest With Young

Breeding Bird Survey Form

amec foster wheeler
Amec Foster Wheeler
160 Traders Blvd East,
Mississauga, ON L4Z 3K7
Tel: (905) 568-2929

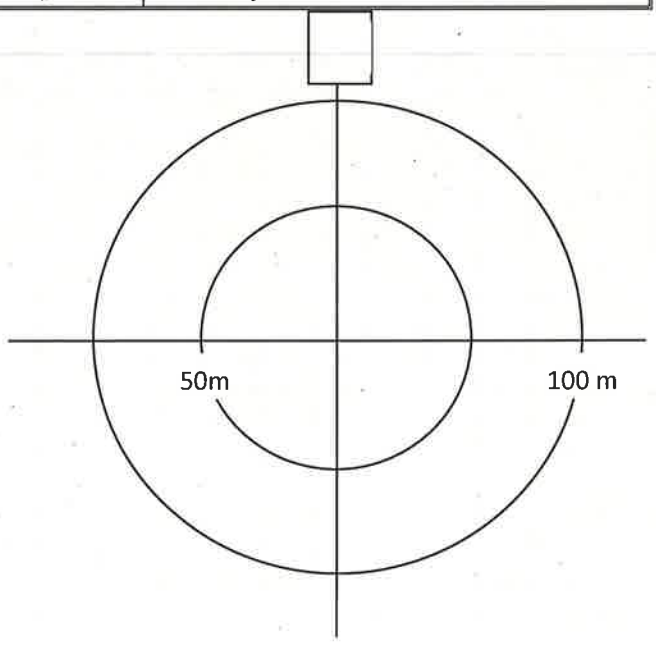
Project Name:	Hydro One	Project Number:		Observers: DJC	Date: Jul 8	Round: 1
Point Count #:	B1313	UTM:			Primary Habitat: 5	Modifier: 3
Cloud: 0	Temp (°C): 13	Wind: 2	Precip: 0	Start (24hr): 855	Secondary Habitat:	Modifier:

Species	<50 m			50-100 m			>100 m			Breeding Evidence
	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	
REVI	1									
WTSP	1									
BTNW	1									
NOPA	1									
AMRE		1								
MOWA				1						



Project Name:		Project Number:		Observers:	Date:	Round:
Point Count #:		UTM:			Primary Habitat:	Modifier:
Cloud:	Temp (°C):	Wind:	Precip:	Start (24hr):	Secondary Habitat:	Modifier:

Species	<50 m			50-100 m			>100 m			Breeding Evidence
	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	



Weather:

Wind Scale:	0 – Calm, 1 – Light Air, 2 – Light Breeze, 3 – Gentle Breeze	Precipitation Scale:	0 – None, 1 – Haze/Fog, 2 – Drizzle, 3 - Rain

Habitat:

1. Poplar Forest	6. Spruce Forest	11. Coniferous Treed Swamp	16. Shrub Bog/Poor Fen	21. Hay Crop	**Modifiers:**
2. Poplar–Birch Forest	7. Jack Pine–Spruce Forest	12. Shrub/Thicket Swamp	17. Open Bog/Fen	22. Clearcut	1. Plantation
3. Poplar–Spruce Forest	8. Jack Pine Forest	13. Sedge/Meadow Marsh	18. Open Shrubland	23. Roadside	2. Regenerating/Young
4. Poplar–Jack Pine Forest	9. Deciduous Treed Swamp	14. Cattail/Open Water Marsh	19. Dense Shrubland	24. Open Cut-Line	3. Mid-aged
5. Birch–Spruce Forest	10. Mixed Treed Swamp	15. Treed Bog/Fen	20. Pasture	25. Cultural	4. Mature

Breeding Evidence

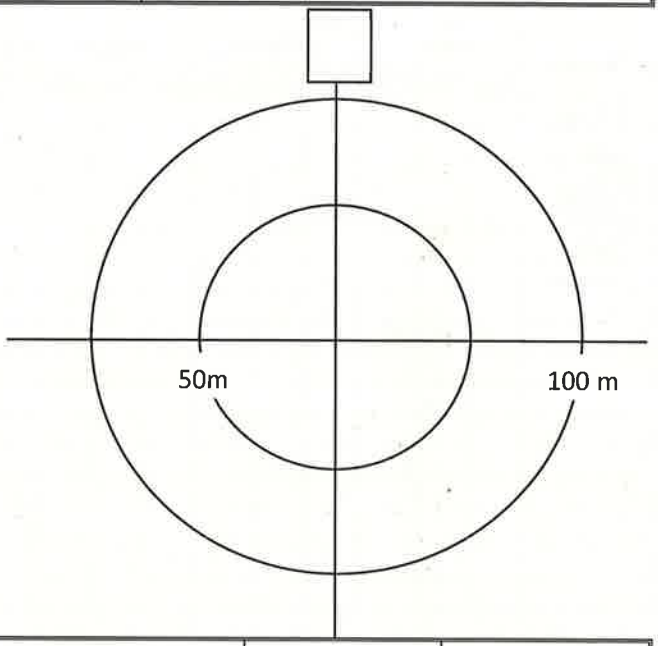
Observed (OB)		Probable (PR)		Confirmed (CO)			
X	Species Observed	P	Pair Observed	A	Aggressive Behaviour	DD	Distraction Display	FS	Carrying Fecal Sac
Possible (PO)		T	Territory	N	Nest	NU	Used Nest	CF	Carrying Food
H	Suitable Habitat	D	Courtship or Display	V	Visiting Probable Nest Site	FY	Feeding Young	NE	Nest With Eggs
S	Male Singing					AE	Adults Entering or Leaving Nest	NY	Nest With Young

Breeding Bird Survey Form

Amec Foster Wheeler
160 Traders Blvd East,
Mississauga, ON L4Z 3K7
Tel: (905) 568-2929

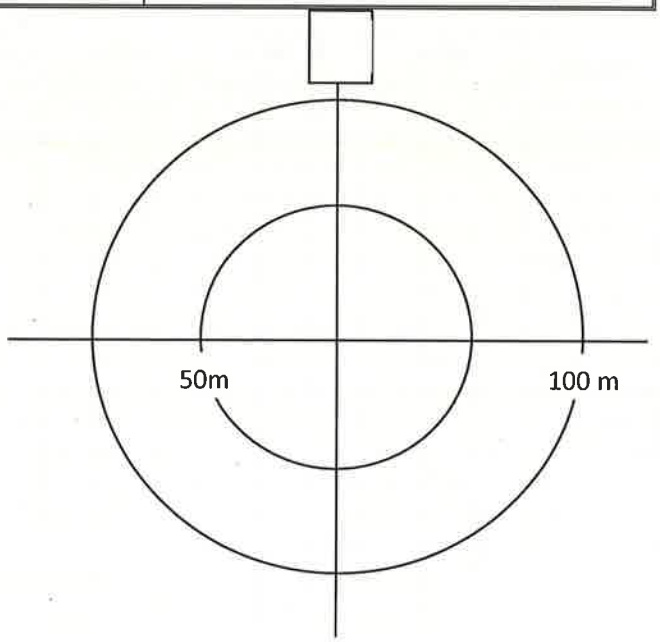
Project Name:		Project Number:		Observers:	Date:	Round:
Point Count #:		UTM:			Primary Habitat:	Modifier:
Cloud:	Temp (°C):	Wind:	Precip:	Start (24hr):	Secondary Habitat:	Modifier:

Species	<50 m			50-100 m			>100 m			Breeding Evidence
	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	



Project Name:		Project Number:		Observers:	Date:	Round:
Point Count #:		UTM:			Primary Habitat:	Modifier:
Cloud:	Temp (°C):	Wind:	Precip:	Start (24hr):	Secondary Habitat:	Modifier:

Species	<50 m			50-100 m			>100 m			Breeding Evidence
	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	



Weather:

Wind Scale:	0 – Calm, 1 – Light Air, 2 – Light Breeze, 3 – Gentle Breeze	Precipitation Scale:	0 – None, 1 – Haze/Fog, 2 – Drizzle, 3 - Rain

Habitat:

1. Poplar Forest	6. Spruce Forest	11. Coniferous Treed Swamp	16. Shrub Bog/Poor Fen	21. Hay Crop	**Modifiers:**
2. Poplar–Birch Forest	7. Jack Pine–Spruce Forest	12. Shrub/Thicket Swamp	17. Open Bog/Fen	22. Clearcut	1. Plantation
3. Poplar–Spruce Forest	8. Jack Pine Forest	13. Sedge/Meadow Marsh	18. Open Shrubland	23. Roadside	2. Regenerating/Young
4. Poplar–Jack Pine Forest	9. Deciduous Treed Swamp	14. Cattail/Open Water Marsh	19. Dense Shrubland	24. Open Cut-Line	3. Mid-aged
5. Birch–Spruce Forest	10. Mixed Treed Swamp	15. Treed Bog/Fen	20. Pasture	25. Cultural	4. Mature

Breeding Evidence

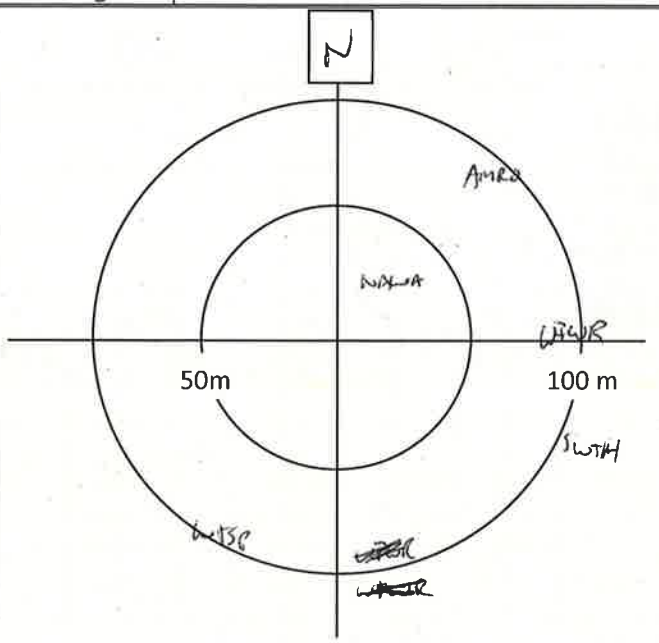
Observed (OB)		Probable (PR)		Confirmed (CO)			
X	Species Observed	P	Pair Observed	A	Aggressive Behaviour	DD	Distraction Display	FS	Carrying Fecal Sac
Possible (PO)		T	Territory	N	Nest	NU	Used Nest	CF	Carrying Food
H	Suitable Habitat	D	Courtship or Display	V	Visiting Probable Nest Site	FY	Feeding Young	NE	Nest With Eggs
S	Male Singing					AE	Adults Entering or Leaving Nest	NY	Nest With Young

Breeding Bird Survey Form

amec foster wheeler
Amec Foster Wheeler
160 Traders Blvd East,
Mississauga, ON L4Z 3K7
Tel: (905) 568-2929

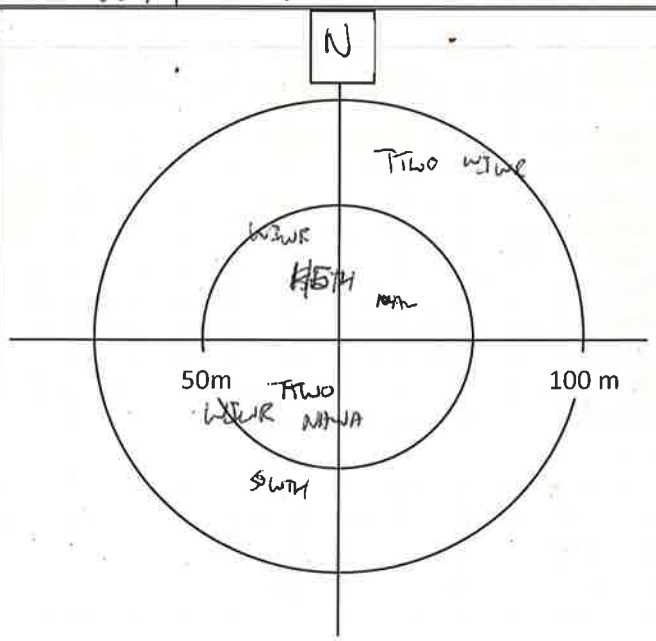
Project Name:	Hydro One	Project Number:		Observers: DAC	Date: Jul 9	Round: 2
Point Count #:	639	UTM:			Primary Habitat: 6	Modifier: 3-4
Cloud: 100	Temp (°C): 14	Wind: 1	Precip: 1	Start (24hr): 620	Secondary Habitat:	Modifier:

Species	<50 m			50-100 m			>100 m			Breeding Evidence
	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	
AMRO				1						
NAWA	1									
WIWR				1						
SWTH				1			1			
WITA				1						



Project Name:	Hydro One	Project Number:		Observers: DAC	Date: Jul 9	Round: 2
Point Count #:	638	UTM:			Primary Habitat: 6	Modifier: 3-4
Cloud: 100	Temp (°C): 15	Wind: 1	Precip: 1	Start (24hr): 637	Secondary Habitat:	Modifier:

Species	<50 m			50-100 m			>100 m			Breeding Evidence
	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	
TWO	1				1					
WIWR	4			1						
HETH	1									
SWTH				1						



Weather:

Wind Scale:	0 – Calm, 1 – Light Air, 2 – Light Breeze, 3 – Gentle Breeze	Precipitation Scale:	0 – None, 1 – Haze/Fog, 2 – Drizzle, 3 - Rain

Habitat:

1. Poplar Forest	6. Spruce Forest	11. Coniferous Treed Swamp	16. Shrub Bog/Poor Fen	21. Hay Crop	**Modifiers:**
2. Poplar–Birch Forest	7. Jack Pine–Spruce Forest	12. Shrub/Thicket Swamp	17. Open Bog/Fen	22. Clearcut	1. Plantation
3. Poplar–Spruce Forest	8. Jack Pine Forest	13. Sedge/Meadow Marsh	18. Open Shrubland	23. Roadside	2. Regenerating/Young
4. Poplar–Jack Pine Forest	9. Deciduous Treed Swamp	14. Cattail/Open Water Marsh	19. Dense Shrubland	24. Open Cut-Line	3. Mid-aged
5. Birch–Spruce Forest	10. Mixed Treed Swamp	15. Treed Bog/Fen	20. Pasture	25. Cultural	4. Mature

Breeding Evidence

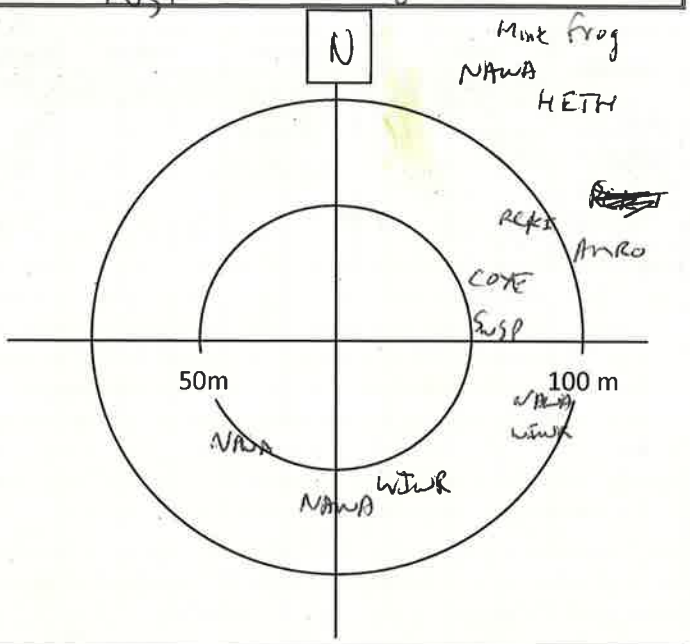
Observed (OB)		Probable (PR)			Confirmed (CO)			
X	Species Observed	P	Pair Observed	A	Aggressive Behaviour	DD	Distraction Display	FS	Carrying Fecal Sac
Possible (PO)		T	Territory	N	Nest	NU	Used Nest	CF	Carrying Food
H	Suitable Habitat	D	Courtship or Display	V	Visiting Probable Nest Site	FY	Feeding Young	NE	Nest With Eggs
S	Male Singing					AE	Adults Entering or Leaving Nest	NY	Nest With Young

Breeding Bird Survey Form

amec foster wheeler
Amec Foster Wheeler
160 Traders Blvd East,
Mississauga, ON L4Z 3K7
Tel: (905) 568-2929

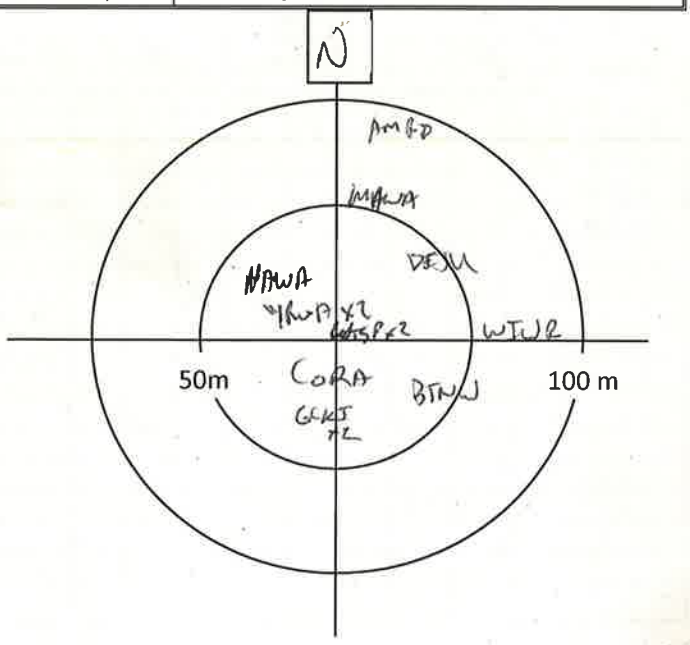
Project Name:	Hydro One	Project Number:		Observers:	DDC	Date: Jul 9	Round: 2
Point Count #:	BB7	UTM:				Primary Habitat: 14	Modifier:
Cloud: 100	Temp (°C): 15	Wind: 1	Precip: 1	Start (24hr): 703		Secondary Habitat: 6	Modifier:

Species	<50 m			50-100 m			>100 m			Breeding Evidence
	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	
WIWR				II						
HETH							1			
AMRO							1			
RCKI				1						
NAWA	4			III			1			
SWSP				1						
COYE				1						



Project Name:		Project Number:		Observers: DDC	Date: Jul 9	Round:
Point Count #:	BB9	UTM:			Primary Habitat:	Modifier:
Cloud: 90	Temp (°C): 15	Wind: 1	Precip: 0	Start (24hr): 722	Secondary Habitat:	Modifier:

Species	<50 m			50-100 m			>100 m			Breeding Evidence
	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	
WIWR				1						
AMRO				1						
YRWA	II									FY
DEJU	1									
CORA	1									
BTNW		1								A
GCKI			II							
WTSP			II							
NAWA			1							A
MPWA						1				



Weather:

Wind Scale:	0 – Calm, 1 – Light Air, 2 – Light Breeze, 3 – Gentle Breeze	Precipitation Scale:	0 – None, 1 – Haze/Fog, 2 – Drizzle, 3 - Rain

Habitat:

1. Poplar Forest	6. Spruce Forest	11. Coniferous Treed Swamp	16. Shrub Bog/Poor Fen	21. Hay Crop	**Modifiers:**
2. Poplar–Birch Forest	7. Jack Pine–Spruce Forest	12. Shrub/Thicket Swamp	17. Open Bog/Fen	22. Clearcut	1. Plantation
3. Poplar–Spruce Forest	8. Jack Pine Forest	13. Sedge/Meadow Marsh	18. Open Shrubland	23. Roadside	2. Regenerating/Young
4. Poplar–Jack Pine Forest	9. Deciduous Treed Swamp	14. Cattail/Open Water Marsh	19. Dense Shrubland	24. Open Cut-Line	3. Mid-aged
5. Birch–Spruce Forest	10. Mixed Treed Swamp	15. Treed Bog/Fen	20. Pasture	25. Cultural	4. Mature

Breeding Evidence

Observed (OB)		Probable (PR)			Confirmed (CO)			
X	Species Observed	P	Pair Observed	A	Aggressive Behaviour	DD	Distraction Display	FS	Carrying Fecal Sac
Possible (PO)		T	Territory	N	Nest	NU	Used Nest	CF	Carrying Food
H	Suitable Habitat	D	Courtship or Display	V	Visiting Probable Nest Site	FY	Feeding Young	NE	Nest With Eggs
S	Male Singing					AE	Adults Entering or Leaving Nest	NY	Nest With Young

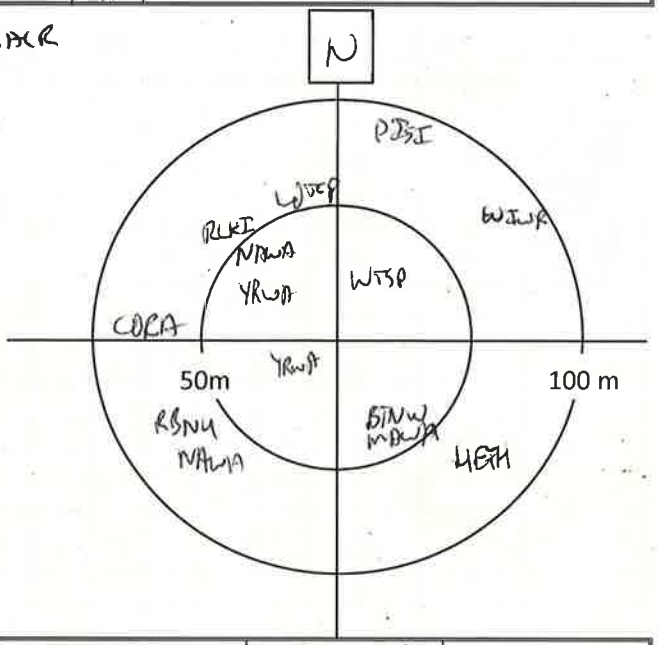
Breeding Bird Survey Form

amec foster wheeler
Amec Foster Wheeler
160 Traders Blvd East,
Mississauga, ON L4Z 3K7
Tel: (905) 568-2929

Project Name:	Hydro One	Project Number:		Observers:	DAC	Date:	Jul 9	Round:	2
Point Count #:	BB16	UTM:				Primary Habitat:		Modifier:	
Cloud:	90	Temp (°C):	15	Wind:	2	Precip:	0	Start (24hr):	741
						Secondary Habitat:		Modifier:	

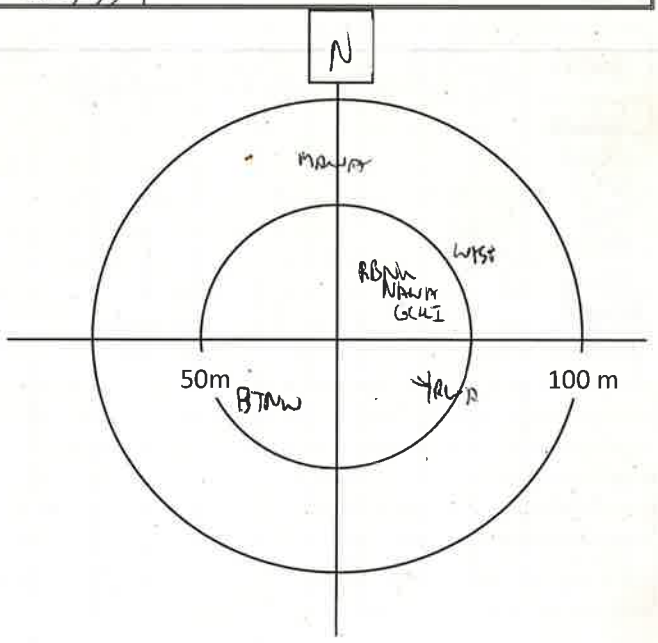
Species	<50 m			50-100 m			>100 m			Breeding Evidence
	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	
RUKI				1						
METH				1						
NAWA	1									
MAWA	1			1						
YRWA	11									
WTSP	1			1						
BTNW	1									
WIWR					1					
SACR								1		
CORA						1				
PISI						1				
RBNU						1				

SACR



Project Name:	Hydro One	Project Number:		Observers:	DAC	Date:	Jul 9	Round:	
Point Count #:	BB15	UTM:				Primary Habitat:		Modifier:	
Cloud:	95	Temp (°C):	15	Wind:	1	Precip:	0	Start (24hr):	755
						Secondary Habitat:		Modifier:	

Species	<50 m			50-100 m			>100 m			Breeding Evidence
	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	
RBNU	1									
GCKI	1									
NAWA	1									
MAWA				1						
BTNW	1									
YRWA	1									
WTSP				1						



Weather:

Wind Scale:	0 – Calm, 1 – Light Air, 2 – Light Breeze, 3 – Gentle Breeze	Precipitation Scale:	0 – None, 1 – Haze/Fog, 2 – Drizzle, 3 - Rain

Habitat:

1. Poplar Forest	6. Spruce Forest	11. Coniferous Treed Swamp	16. Shrub Bog/Poor Fen	21. Hay Crop	**Modifiers:**
2. Poplar–Birch Forest	7. Jack Pine–Spruce Forest	12. Shrub/Thicket Swamp	17. Open Bog/Fen	22. Clearcut	1. Plantation
3. Poplar–Spruce Forest	8. Jack Pine Forest	13. Sedge/Meadow Marsh	18. Open Shrubland	23. Roadside	2. Regenerating/Young
4. Poplar–Jack Pine Forest	9. Deciduous Treed Swamp	14. Cattail/Open Water Marsh	19. Dense Shrubland	24. Open Cut-Line	3. Mid-aged
5. Birch–Spruce Forest	10. Mixed Treed Swamp	15. Treed Bog/Fen	20. Pasture	25. Cultural	4. Mature

Breeding Evidence

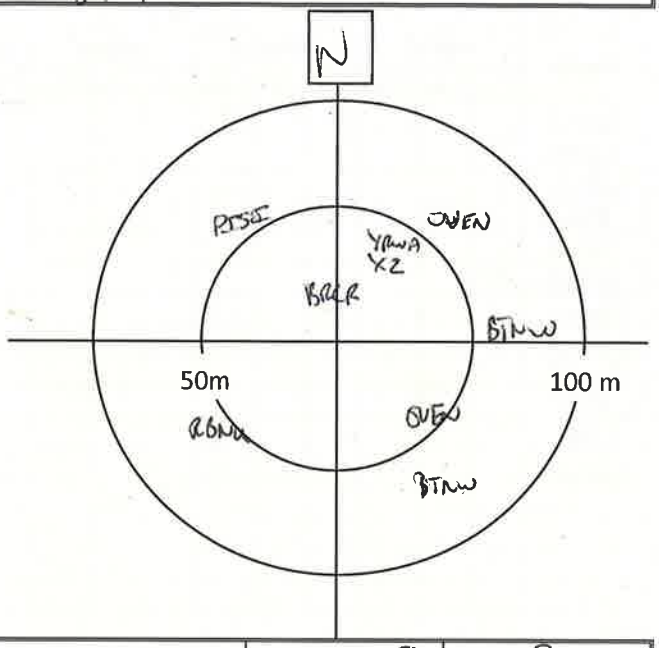
Observed (OB)		Probable (PR)				Confirmed (CO)			
X	Species Observed	P	Pair Observed	A	Aggressive Behaviour	DD	Distraction Display	FS	Carrying Fecal Sac
Possible (PO)		T	Territory	N	Nest	NU	Used Nest	CF	Carrying Food
H	Suitable Habitat	D	Courtship or Display	V	Visiting Probable Nest Site	FY	Feeding Young	NE	Nest With Eggs
S	Male Singing					AE	Adults Entering or Leaving Nest	NY	Nest With Young

Breeding Bird Survey Form

amec foster wheeler
Amec Foster Wheeler
160 Traders Blvd East,
Mississauga, ON L4Z 3K7
Tel: (905) 568-2929

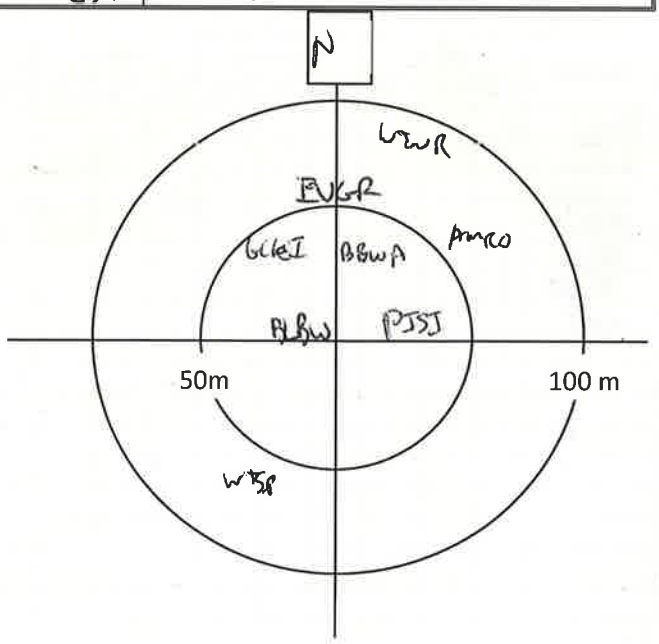
Project Name:	Hydro One	Project Number:		Observers:	DAC	Date:	Jul 9	Round:	2
Point Count #:	BB17	UTM:				Primary Habitat:	5	Modifier:	4
Cloud:	95	Temp (°C):	15	Wind:	2	Precip:	0	Start (24hr):	813	Secondary Habitat:		Modifier:	

Species	<50 m			50-100 m			>100 m			Breeding Evidence
	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	
BRCR	1									
~~RBNU~~ OVEN	1			1						
YRWA	11			1						P
BTNW				1		1				
PISI						1				



Project Name:	Hydro One	Project Number:		Observers:	DAC	Date:	Jul 9	Round:	2
Point Count #:	BB14	UTM:				Primary Habitat:	5	Modifier:	
Cloud:	95	Temp (°C):	15	Wind:	7	Precip:	0	Start (24hr):	834	Secondary Habitat:		Modifier:	

Species	<50 m			50-100 m			>100 m			Breeding Evidence
	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	
WTSP				1						
GCKI	1									
WTSP				1						
PISI	1									
AMRO				1						
BBWA	1									
EVGR					1					
BLBW	1									



Weather:

Wind Scale:	0 – Calm, 1 – Light Air, 2 – Light Breeze, 3 – Gentle Breeze	Precipitation Scale:	0 – None, 1 – Haze/Fog, 2 – Drizzle, 3 - Rain

Habitat:

1. Poplar Forest	6. Spruce Forest	11. Coniferous Treed Swamp	16. Shrub Bog/Poor Fen	21. Hay Crop	**Modifiers:**
2. Poplar–Birch Forest	7. Jack Pine–Spruce Forest	12. Shrub/Thicket Swamp	17. Open Bog/Fen	22. Clearcut	1. Plantation
3. Poplar–Spruce Forest	8. Jack Pine Forest	13. Sedge/Meadow Marsh	18. Open Shrubland	23. Roadside	2. Regenerating/Young
4. Poplar–Jack Pine Forest	9. Deciduous Treed Swamp	14. Cattail/Open Water Marsh	19. Dense Shrubland	24. Open Cut-Line	3. Mid-aged
5. Birch–Spruce Forest	10. Mixed Treed Swamp	15. Treed Bog/Fen	20. Pasture	25. Cultural	4. Mature

Breeding Evidence

Observed (OB)		Probable (PR)			Confirmed (CO)			
X	Species Observed	P	Pair Observed	A	Aggressive Behaviour	DD	Distraction Display	FS	Carrying Fecal Sac
Possible (PO)		T	Territory	N	Nest	NU	Used Nest	CF	Carrying Food
H	Suitable Habitat	D	Courtship or Display	V	Visiting Probable Nest Site	FY	Feeding Young	NE	Nest With Eggs
S	Male Singing					AE	Adults Entering or Leaving Nest	NY	Nest With Young

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: Marathon		POLYGON: MAR_001	
SURVEYOR(S): KOM, DC	DATE: JUN 7	TIME: start	14:15
		finish	
UTMZ:	UTME:	UTMN:	

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
G TERRESTRIAL	G ORGANIC	G LACUSTRINE	G NATURAL	G PLANKTON	G LAKE
G WETLAND	G MINERAL SOIL	G RIVERINE	G CULTURAL	G SUBMERGED	G POND
G AQUATIC	G PARENT MIN.	G BOTTOMLAND		G FLOATING-LVD.	G RIVER
	G ACIDIC BEDRK.	G TERRACE		G GRAMINOID	G STREAM
	G BASIC BEDRK.	G VALLEY SLOPE		G FORB	G MARSH
SITE	G CARB. BEDRK.	G TABLELAND		G LICHEN	G SWAMP
		G ROLL. UPLAND		G BRYOPHYTE	G FEN
G OPEN WATER		G CLIFF	COVER	G DECIDUOUS	G BOG
G SHALLOW WATER		G TALUS		G CONIFEROUS	G BARREN
G SURFICIAL DEP.		G CREVICE / CAVE	G OPEN	G MIXED	G MEADOW
G BEDROCK		G ALVAR	G SHRUB		G PRAIRIE
		G ROCKLAND	G TREED		G THICKET
		G BEACH / BAR			G SAVANNAH
		G SAND DUNE			G WOODLAND
		G BLUFF			G FOREST
					G PLANTATION

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (up to 4 sp) (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	4	PICGLAU > BETPAP > POPTREM > PINBANK
2	SUB-CANOPY	3	2	(BETPAP > ABIBALS > PICGLAU) > AME_SP
3	UNDERSTOREY	4	1	ABIBALS > AME_SP
4	GRD. LAYER	5	4	DIELONI = CORCANA >> MAICANA > CLIBARE

HT CODES: 1 = >25 m 2 = 10<HT 25 m 3 = 2<HT 10 m 4 = 1<HT 2 m 5 = 0.5<HT 1 m 6 = 0.2<HT 0.5 m 7 = HT<0.2 m

CVR CODES 0= NONE 1= 0% < CVR 10% 2= 10 < CVR 25% 3= 25 < CVR 60% 4= CVR > 60%

STAND COMPOSITION:	BA:

SIZE CLASS ANALYSIS:		< 10		10 - 24		25 - 50		> 50
	A		A		A			
STANDING SNAGS:	A	< 10	O	10 - 24	R	25 - 50		> 50
DEADFALL / LOGS:	A	< 10	R	10 - 24	R	25 - 50		> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE :		PIONEER		YOUNG	X	MID-AGE		MATURE		OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

		ELC CODE
COMMUNITY CLASS:		
COMMUNITY SERIES:		
ECOSITE:		
VEGETATION TYPE:		
INCLUSION		
COMPLEX		

Notes:

ELC
STAND CHARACTERISTICS

SITE:	
POLYGON:	
DATE:	
SURVEYOR(S):	

TREE TALLY BY SPECIES:

PRISM FACTOR

SPECIES	TALLY 1	TALLY 2	TALLY 3	TALLY 4	TALLY 5	TOTAL	REL. AVG
TOTAL							100
BASAL AREA (BA)							
DEAD							

STAND COMPOSITION:

COMMUNITY PROFILE DIAGRAM

Notes:

ELC

SOILS ONTARIO

SITE:
POLYGON:
DATE:
SURVEYOR(S):

	P/A	PP	Dr	Position	Aspect	Slope %	Type	Class	Z	UTM EASTING	UTM NORTHING
1											
2											
3											
4											
5											

SOIL	1	2	3	4	5
TEXTURE x HORIZON					
A TEXTURE					
COURSE FRAGMENTS					
B TEXTURE					
COURSE FRAGMENTS					
C TEXTURE					
COURSE FRAGMENTS					
EFFECTIVE TEXTURE					
SURFACE STONINESS					
SURFACE ROCKINESS					
DEPTH TO / OF					
MOTTLES					
GLEY					
BEDROCK					
WATER TABLE					
CARBONATES					
DEPTH OF ORGANICS					
PORE SIZE DISC #1					
PORE SIZE DISC #2					
MOISTURE REGIME					
SOIL SURVEY MAP					
LEGEND CLASS					

ELC

PLANT SPECIES LIST

SITE: Marathon
POLYGON: MAR_001
DATE: July 7
SURVEYOR(S): RDM/DC

LAYERS: 1 = CANOPY 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER 1	2	3	4	COL.
ABIBALS	O	O	A		
PICGLAU	O	O	O	A	
POPTREM				A	
BETPAPY			O	A	
PINBANK				O	
ALNING					
RUB_SP					
POPBALS					
ALNINCRT					
AMESAN6 (under)					
SALIX_SP		O			
RHOGROE	O				
AMELANCHIER SP		O	O		
VIBEDUL		O			
ROSACIC	O				
SORDECO	O				
VACANGU	A				
DIELMI	A				

SPECIES CODE	LAYER 1	2	3	4	COL.
CORCANA	A				
LIEBORE	A				
MAICANA	A				
CLIBOREA	A				
LYCDEND	O				
PYRAMER	R				
TRIBOR	O				
EPIREPE	R				
COPTRIF	O				
CORTRIF	R				
MONUNI	R				
LYCANN	R				
MONUFL	R				
CORMACU					
PLAMAJO					
TRIHYBR					
SIBTRIF					
LEWLG					
SISYRINCHIUM SP					
SOLJUNC					
ANAMARG					
EURMACR					
VACMACR					
RANACRE					
TRIREPE					
TAROFFI					
HIE_SP					
VICCRAC					
ACHMIL					
CHAANGU					
ERAVIRG					

trees

EDGE

shrubs

ferns

pipe

pyrola

EDGE

ELC MANAGEMENT / DISTURBANCE

SITE:
POLYGON: MAR_001
DATE:
SURVEYOR(S):

DISTURBANCE / EXTENT	0	1	2	3	SCORE †
TIME SINCE LOGGING	> 30 YRS	15 - 30 YRS	5 - 15 YRS	0 - 5 YEARS	
INTENSITY OF LOGGING	NONE	FUEL WOOD	SELECTIVE	DIAMETER LIMIT	
EXTENT OF LOGGING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
SUGAR BUSH OPERATIONS	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF OPERATIONS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
GAPS IN FOREST CANOPY	NONE	SMALL	INTERMEDIATE	LARGE	
EXTENT OF GAPS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
LIVESTOCK (GRAZING)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF LIVESTOCK	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
ALIEN SPECIES	NONE	OCCASIONAL	ABUNDANT	DOMINANT	
EXTENT OF ALIEN SPECIES	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
PLANTING (PLANTATION)	NONE	OCCASIONAL	ABUNDANT	DOMINANT	
EXTENT OF PLANTING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
TRACKS AND TRAILS	NONE	FAINT TRAILS	WELL MARKED	TRACKS OR	
EXTENT OF TRACKS/TRAILS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
DUMPING (RUBBISH)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DUMPING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
EARTH DISPLACEMENT	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DISPLACEMENT	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
RECREATIONAL USE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF RECR. USE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
NOISE	NONE	SLIGHT	MODERATE	INTENSE	
EXTENT OF NOISE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
DISEASE/DEATH OF TREES	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DISEASE / DEATH	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
WIND THROW (BLOW DOWN)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF WIND THROW	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
BROWSE (e.g. DEER)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF BROWSE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
BEAVER ACTIVITY	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF BEAVER	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
FLOODING (pools & puddling)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF FLOODING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
FIRE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF FIRE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
ICE DAMAGE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF ICE DAMAGE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
OTHER	NONE	LIGHT	MODERATE	HEAVY	
EXTENT	NONE	LOCAL	WIDESPREAD	EXTENSIVE	

† INTENSITY x EXTENT = SCORE

ELC WILDLIFE

SITE:
POLYGON:
DATE:
SURVEYOR(S):
START TIME: END TIME:

TEMP (°C): CLOUD (10th): WIND: PRECIPITATION:
CONDITIONS:

POTENTIAL WILDLIFE HABITAT:

	VERNAL POOLS		SNAGS
	HIBERNACULA		FALLEN LOGS

SPECIES LIST:

TY	SP. CODE	EV	NOTES	#	TY	SP. CODE	EV	NOTES	#
	C.T. [illegible]								

FAUNAL TYPE CODES (TY):
B = BIRD M = MAMMAL H = HERPETOFAUNA L = LEPIDOPTERA F = FISH O = OTHER

EVIDENCE CODES (EV):

BREEDING BIRD - POSSIBLE:
SH = SUITABLE HABITAT SM = SINGING MALE

BREEDING BIRD - PROBABLE:
T = TERRITORY D = DISPLAY P = PAIR
A = ANXIETY BEHAVIOUR N = NEST BUILDING V = VISITING NEST

BREEDING BIRD - CONFIRMED:
DD = DISTRACTION NU = USED NEST FY = FLEDGED YOUNG
NE = EGGS NY = YOUNG FS = FOOD/FAECAL SACK
AE = NEST ENTRY

OTHER WILDLIFE EVIDENCE:
OB = OBSERVED VO = VOCALIZATION CA = CARCASS
DP = DISTINCTIVE PARTS HO = HOUSE/DEN FY = EGGS OR YOUNG
TK = TRACKS FE = FEEDING EVIDENCE SC = SCAT
SI = OTHER SIGNS (specify)

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: Marathon		POLYGON: MAR03	
SURVEYOR(S): RDM DC	DATE: Jul 8	TIME: start	
		finish	
UTMZ:	UTME:	UTMN:	

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
G TERRESTRIAL	G ORGANIC	G LACUSTRINE	G NATURAL	G PLANKTON	G LAKE
G WETLAND	G MINERAL SOIL	G RIVERINE	G CULTURAL	G SUBMERGED	G POND
G AQUATIC	G PARENT MIN.	G BOTTOMLAND		G FLOATING-LVD.	G RIVER
	G ACIDIC BEDRK.	G TERRACE		G GRAMINOID	G STREAM
SITE	G BASIC BEDRK.	G VALLEY SLOPE	COVER	G FORB	G MARSH
	G CARB. BEDRK.	G TABLELAND		G LICHEN	G SWAMP
G OPEN WATER		G ROLL. UPLAND	G OPEN	G BRYOPHYTE	G FEN
G SHALLOW WATER		G CLIFF	G SHRUB	G DECIDUOUS	G BOG
G SURFICIAL DEP.		G TALUS	G TREED	G CONIFEROUS	G BARREN
G BEDROCK		G CREVICE / CAVE		G MIXED	G MEADOW
		G ALVAR			G PRAIRIE
		G ROCKLAND			G THICKET
		G BEACH / BAR			G SAVANNAH
		G SAND DUNE			G WOODLAND
		G BLUFF			G FOREST
					G PLANTATION

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (up to 4 sp) (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	3	PICMAR > LARLAR > PICGLA
2	SUB-CANOPY	3	1	PICMAR > LARLAR > AME-SP
3	UNDERSTOREY	4	1	PICMAR > AME-SP > SalX
4	GRD. LAYER	0	4	CHACAL = MIRSAM > CORCAN > CAR-SP

HT CODES: 1 = >25 m 2 = 10<HT≤25 m 3 = 2<HT≤10 m 4 = 1<HT≤2 m 5 = 0.5<HT≤1 m 6 = 0.2<HT≤0.5 m 7 = HT<0.2 m

CVR CODES 0= NONE 1= 0% < CVR ≤ 10% 2= 10 < CVR ≤ 25% 3= 25 < CVR ≤ 60% 4= CVR > 60%

STAND COMPOSITION:	BA:

SIZE CLASS ANALYSIS:	A	< 10	A	10 - 24	O	25 - 50	O	> 50
STANDING SNAGS:	A	< 10	A	10 - 24	O	25 - 50	N	> 50
DEADFALL / LOGS:	A	< 10	A	10 - 24	O	25 - 50	N	> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE :		PIONEER		YOUNG	X	MID-AGE		MATURE		OLD GROWTH

SOIL ANALYSIS:

TEXTURE: Organic	DEPTH TO MOTTLES / GLEY	g =	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

		ELC CODE
COMMUNITY CLASS:		
COMMUNITY SERIES:		
ECOSITE:		
VEGETATION TYPE:		
INCLUSION		
COMPLEX		

Notes:

ELC
STAND CHARACTERISTICS

SITE:	
POLYGON:	
DATE:	
SURVEYOR(S):	

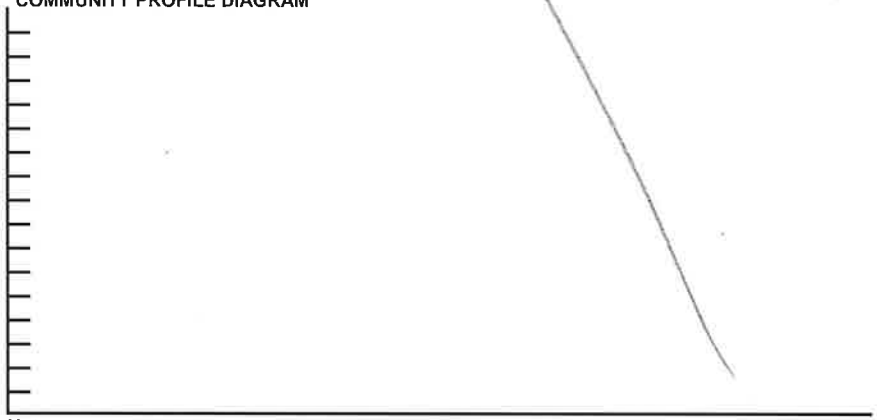
TREE TALLY BY SPECIES:

PRISM FACTOR

SPECIES	TALLY 1	TALLY 2	TALLY 3	TALLY 4	TALLY 5	TOTAL	REL. AVG
TOTAL							100
BASAL AREA (BA)							
DEAD							

STAND COMPOSITION:

COMMUNITY PROFILE DIAGRAM



Notes:

ELC

SOILS ONTARIO

SITE:

POLYGON:

DATE:

SURVEYOR(S):

Slope UTM

	P/A	PP	Dr	Position	Aspect	%	Type	Class	Z	EASTING	NORTHING
1											
2											
3											
4											
5											

SOIL	1	2	3	4	5
TEXTURE x HORIZON					
A TEXTURE					
COURSE FRAGMENTS					
B TEXTURE					
COURSE FRAGMENTS					
C TEXTURE					
COURSE FRAGMENTS					
EFFECTIVE TEXTURE					
SURFACE STONINESS					
SURFACE ROCKINESS					
DEPTH TO / OF					
MOTTLES					
GLEY					
BEDROCK					
WATER TABLE					
CARBONATES					
DEPTH OF ORGANICS					
PORE SIZE DISC #1					
PORE SIZE DISC #2					
MOISTURE REGIME					
SOIL SURVEY MAP					
LEGEND CLASS					

ELC

PLANT SPECIES LIST

SITE: Marathon

POLYGON: MAR 003

DATE: JUN 8

SURVEYOR(S): RDM/DC

LAYERS: 1 = CANOPY 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER 1	2	3	4	COL.
PICGLAU	O	O	O	O	
PICMARI	A	A	A	A	
LARLARI	O	O	O	O	
BETPUMI			O	O	
Salix			O	O	
RHOGRDE			O		
MYRGALE			A		
RHAICALY			A		
LONCANA			O		
Amelanchier		O	O		
CARSTRI				A	
MAITRIF				A	
VACOXYC				A	
COMPALU				O	
TYPLATI				O	
IRIVERS				R	
MENTRIF				R	
Sagittaria				R	
CARTRIS				A	
CEURIVA				O	
EQUSYLV				O	
CORCANA				A	
Grass				O	

SPECIES CODE	LAYER 1	2	3	4	COL.

ELC

MANAGEMENT / DISTURBANCE

SITE: Marathon
POLYGON: MAR003
DATE: 8th July 8
SURVEYOR(S): RDM/DC

DISTURBANCE / EXTENT	0	1	2	3	SCORE †
TIME SINCE LOGGING	> 30 YRS	15 - 30 YRS	5 - 15 YRS	0 - 5 YEARS	
INTENSITY OF LOGGING	NONE	FUEL WOOD	SELECTIVE	DIAMETER LIMIT	
EXTENT OF LOGGING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
SUGAR BUSH OPERATIONS	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF OPERATIONS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
GAPS IN FOREST CANOPY	NONE	SMALL	INTERMEDIATE	LARGE	
EXTENT OF GAPS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
LIVESTOCK (GRAZING)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF LIVESTOCK	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
ALIEN SPECIES	NONE	OCCASIONAL	ABUNDANT	DOMINANT	
EXTENT OF ALIEN SPECIES	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
PLANTING (PLANTATION)	NONE	OCCASIONAL	ABUNDANT	DOMINANT	
EXTENT OF PLANTING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
TRACKS AND TRAILS	NONE	FAINT TRAILS	WELL MARKED	TRACKS OR	
EXTENT OF TRACKS/TRAILS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
DUMPING (RUBBISH)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DUMPING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
EARTH DISPLACEMENT	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DISPLACEMENT	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
RECREATIONAL USE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF RECR. USE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
NOISE	NONE	SLIGHT	MODERATE	INTENSE	
EXTENT OF NOISE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
DISEASE/DEATH OF TREES	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DISEASE / DEATH	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
WIND THROW (BLOW DOWN)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF WIND THROW	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
BROWSE (e.g. DEER)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF BROWSE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
BEAVER ACTIVITY	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF BEAVER	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
FLOODING (pools & puddling)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF FLOODING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
FIRE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF FIRE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
ICE DAMAGE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF ICE DAMAGE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
OTHER	NONE	LIGHT	MODERATE	HEAVY	
EXTENT	NONE	LOCAL	WIDESPREAD	EXTENSIVE	

† INTENSITY x EXTENT = SCORE

ELC

WILDLIFE

SITE:
POLYGON:
DATE:
SURVEYOR(S):
START TIME: END TIME:

TEMP (°C):	CLOUD (10th):	WIND:	PRECIPITATION:

CONDITIONS:

POTENTIAL WILDLIFE HABITAT:

	VERNAL POOLS		SNAGS
	HIBERNACULA		FALLEN LOGS

SPECIES LIST:

TY	SP. CODE	EV	NOTES	#	TY	SP. CODE	EV	NOTES	#
H	Mink Frog								
H	Green Frog								

FAUNAL TYPE CODES (TY):
B = BIRD M = MAMMAL H = HERPETOFAUNA L = LEPIDOPTERA F = FISH O = OTHER

EVIDENCE CODES (EV):

BREEDING BIRD - POSSIBLE:
SH = SUITABLE HABITAT SM = SINGING MALE

BREEDING BIRD - PROBABLE:
T = TERRITORY D = DISPLAY P = PAIR
A = ANXIETY BEHAVIOUR N = NEST BUILDING V = VISITING NEST

BREEDING BIRD - CONFIRMED:
DD = DISTRACTION NU = USED NEST FY = FLEDGED YOUNG
NE = EGGS NY = YOUNG FS = FOOD/FAECAL SACK
AE = NEST ENTRY

OTHER WILDLIFE EVIDENCE:
OB = OBSERVED VO = VOCALIZATION CA = CARCASS
DP = DISTINCTIVE PARTS HO = HOUSE/DEN FY = EGGS OR YOUNG
TK = TRACKS FE = FEEDING EVIDENCE SC = SCAT
SI = OTHER SIGNS (specify)

ELC COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: Marathon TS | POLYGON: MARO10

SURVEYOR(S): RM, DC | DATE: July 8/17 | TIME: start / finish

UTMZ: | UTME: | UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
G TERRESTRIAL G WETLAND G AQUATIC	G ORGANIC G MINERAL SOIL G PARENT MIN. G ACIDIC BEDRK. G BASIC BEDRK. G CARB. BEDRK.	G LACUSTRINE G RIVERINE G BOTTOMLAND G TERRACE G VALLEY SLOPE G TABLELAND G ROLL. UPLAND G CLIFF G TALUS G CREVICE / CAVE G ALVAR G ROCKLAND G BEACH / BAR G SAND DUNE G BLUFF	G NATURAL G CULTURAL	G PLANKTON G SUBMERGED G FLOATING-LVD. G GRAMINOID G FORB G LICHEN G BRYOPHYTE G DECIDUOUS G CONIFEROUS G MIXED	G LAKE G POND G RIVER G STREAM G MARSH G SWAMP G FEN G BOG G BARREN G MEADOW G PRAIRIE G THICKET G SAVANNAH G WOODLAND G FOREST G PLANTATION
SITE G OPEN WATER G SHALLOW WATER G SURFICIAL DEP. G BEDROCK			**COVER** G OPEN G SHRUB G TREED		

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (up to 4 sp) (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	4	BETPAP>PICGLA>ABIBALS>POPTREM
2	SUB-CANOPY	3	1	ACESPEC=SORDEC=ABIBALS
3	UNDERSTOREY	4	1	ACESPEC=ABIBALS
4	GRD. LAYER	7	2	ARITRIP=MAICAN

HT CODES: 1 = >25 m 2 = 10<HT 25 m 3 = 2<HT 10 m 4 = 1<HT 2 m 5 = 0.5<HT 1 m 6 = 0.2<HT 0.5 m 7 = HT<0.2 m

CVR CODES 0= NONE 1= 0% < CVR 10% 2= 10 < CVR 25% 3= 25 < CVR 60% 4= CVR > 60%

STAND COMPOSITION: | BA:

SIZE CLASS ANALYSIS:	A	< 10	A	10 - 24	A	25 - 50	R	> 50
STANDING SNAGS:	A	< 10	O	10 - 24	O	25 - 50	R	> 50
DEADFALL / LOGS:	A	< 10	A	10 - 24	O	25 - 50	R	> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE :		PIONEER		YOUNG	/	MID-AGE		MATURE		OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

		ELC CODE
COMMUNITY CLASS:		
COMMUNITY SERIES:		
ECOSITE:		
VEGETATION TYPE:		
INCLUSION		
COMPLEX		

Notes:

ELC STAND CHARACTERISTICS

SITE:

POLYGON:

DATE:

SURVEYOR(S):

TREE TALLY BY SPECIES:

PRISM FACTOR

SPECIES	TALLY 1	TALLY 2	TALLY 3	TALLY 4	TALLY 5	TOTAL	REL. AVG
TOTAL							100
BASAL AREA (BA)							
DEAD							

STAND COMPOSITION:

COMMUNITY PROFILE DIAGRAM

Notes:

ELC

SOILS ONTARIO

SITE:
POLYGON:
DATE:
SURVEYOR(S):

Slope UTM

	P/A	PP	Dr	Position	Aspect	%	Type	Class	Z	EASTING	NORTHING
1											
2											
3											
4											
5											

SOIL	1	2	3	4	5
TEXTURE x HORIZON					
A TEXTURE					
COURSE FRAGMENTS					
B TEXTURE					
COURSE FRAGMENTS					
C TEXTURE					
COURSE FRAGMENTS					
EFFECTIVE TEXTURE					
SURFACE STONINESS					
SURFACE ROCKINESS					
DEPTH TO / OF					
MOTTLES					
GLEY					
BEDROCK					
WATER TABLE					
CARBONATES					
DEPTH OF ORGANICS					
PORE SIZE DISC #1					
PORE SIZE DISC #2					
MOISTURE REGIME					
SOIL SURVEY MAP					
LEGEND CLASS					

ELC
PLANT SPECIES LIST

SITE: Marathon
POLYGON: MAR010
DATE: July 8
SURVEYOR(S): RDM DC

LAYERS: 1 = CANOPY 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER 1	2	3	4	COL.
BETPAP	A	A	A	A	
PICGLAU	A	A	A	A	
ABIBALS	O	A	A	A	
POPTRE	O	O	R	R	
SAMNIGR				O	
SORAMER				O	
RIBGLAN				O	
VIBEDUL				R	
ACESPIC		A	A	A	
ROSACIC				A	
PRUPENN			O	O	
SORDECO			O	O	
Amelanchier			O	O	
DIELONI				O	

SPECIES CODE	LAYER 1	2	3	4	COL.
ARITRIP				A	
TRIBOREA				O	
DRYCART				O	
CALCANA				A	
CLIBORE				O	
SILVUL				R	

ELC

MANAGEMENT / DISTURBANCE

SITE:
POLYGON:
DATE:
SURVEYOR(S):

DISTURBANCE / EXTENT	0	1	2	3	SCORE †
TIME SINCE LOGGING	> 30 YRS	15 - 30 YRS	5 - 15 YRS	0 - 5 YEARS	
INTENSITY OF LOGGING	NONE	FUEL WOOD	SELECTIVE	DIAMETER LIMIT	
EXTENT OF LOGGING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
SUGAR BUSH OPERATIONS	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF OPERATIONS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
GAPS IN FOREST CANOPY	NONE	SMALL	INTERMEDIATE	LARGE	
EXTENT OF GAPS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
LIVESTOCK (GRAZING)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF LIVESTOCK	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
ALIEN SPECIES	NONE	OCCASIONAL	ABUNDANT	DOMINANT	
EXTENT OF ALIEN SPECIES	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
PLANTING (PLANTATION)	NONE	OCCASIONAL	ABUNDANT	DOMINANT	
EXTENT OF PLANTING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
TRACKS AND TRAILS	NONE	FAINT TRAILS	WELL MARKED	TRACKS OR	
EXTENT OF TRACKS/TRAILS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
DUMPING (RUBBISH)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DUMPING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
EARTH DISPLACEMENT	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DISPLACEMENT	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
RECREATIONAL USE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF RECR. USE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
NOISE	NONE	SLIGHT	MODERATE	INTENSE	
EXTENT OF NOISE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
DISEASE/DEATH OF TREES	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DISEASE / DEATH	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
WIND THROW (BLOW DOWN)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF WIND THROW	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
BROWSE (e.g. DEER)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF BROWSE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
BEAVER ACTIVITY	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF BEAVER	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
FLOODING (pools & puddling)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF FLOODING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
FIRE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF FIRE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
ICE DAMAGE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF ICE DAMAGE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
OTHER	NONE	LIGHT	MODERATE	HEAVY	
EXTENT	NONE	LOCAL	WIDESPREAD	EXTENSIVE	

† INTENSITY x EXTENT = SCORE

ELC

WILDLIFE

SITE: Marathon
POLYGON: MAR 00
DATE: July 8
SURVEYOR(S): RDM DC
START TIME: END TIME:

TEMP (°C):	CLOUD (10th):	WIND:	PRECIPITATION:
CONDITIONS:			

POTENTIAL WILDLIFE HABITAT:

	VERNAL POOLS	X	SNAGS Sng1
	HIBERNACULA	X	FALLEN LOGS

SPECIES LIST:

TY	SP. CODE	EV	NOTES	#	TY	SP. CODE	EV	NOTES	#

FAUNAL TYPE CODES (TY):
B = BIRD M = MAMMAL H = HERPETOFAUNA L = LEPIDOPTERA F = FISH O = OTHER

EVIDENCE CODES (EV):

BREEDING BIRD - POSSIBLE:
SH = SUITABLE HABITAT SM = SINGING MALE

BREEDING BIRD - PROBABLE:
T = TERRITORY D = DISPLAY P = PAIR
A = ANXIETY BEHAVIOUR N = NEST BUILDING V = VISITING NEST

BREEDING BIRD - CONFIRMED:
DD = DISTRACTION NU = USED NEST FY = FLEDGED YOUNG
NE = EGGS NY = YOUNG FS = FOOD/FAECAL SACK
AE = NEST ENTRY

OTHER WILDLIFE EVIDENCE:
OB = OBSERVED VO = VOCALIZATION CA = CARCASS
DP = DISTINCTIVE PARTS HO = HOUSE/DEN FY = EGGS OR YOUNG
TK = TRACKS FE = FEEDING EVIDENCE SC = SCAT
SI = OTHER SIGNS (specify)

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: Mountain TS		POLYGON: MAR 011	
SURVEYOR(S): RSM, DK	DATE: July 8/17	TIME: start	
		finish	
UTMZ:	UTME:	UTMN:	

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
G TERRESTRIAL	G ORGANIC	G LACUSTRINE	G NATURAL	G PLANKTON	G LAKE
G WETLAND	G MINERAL SOIL	G RIVERINE	G CULTURAL	G SUBMERGED	G POND
G AQUATIC	G PARENT MIN.	G BOTTOMLAND TERRACE		G FLOATING-LVD	G RIVER
	G ACIDIC BEDRK.	G VALLEY SLOPE		G GRAMINOID	G STREAM
SITE	G BASIC BEDRK.	G TABLELAND		G FORB	G MARSH
	G CARB. BEDRK.	G ROLL. UPLAND		G LICHEN	G SWAMP
G OPEN WATER		G CLIFF	COVER	G BRYOPHYTE	G FEN
G SHALLOW WATER		G TALUS		G DECIDUOUS	G BOG
G SURFICIAL DEP.		G CREVICE / CAVE	G OPEN	G CONIFEROUS	G BARREN
G BEDROCK		G ALVAR	G SHRUB	G MIXED	G MEADOW
		G ROCKLAND	G TREED		G PRAIRIE
		G BEACH / BAR			G THICKET
		G SAND DUNE			G SAVANNAH
		G BLUFF			G WOODLAND
					G FOREST
					G PLANTATION

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (up to 4 sp) (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	3	PICGLAU
2	SUB-CANOPY	3	3	PICGLAU > ABIBAL
3	UNDERSTOREY	4	2	PICGLAU > ABIBAL
4	GRD. LAYER	5	4	VACANG/FORCANA > PICGLAU > MALCAN

HT CODES: 1 = >25 m 2 = 10<HT≤25 m 3 = 2<HT≤10 m 4 = 1<HT≤2 m 5 = 0.5<HT≤1 m 6 = 0.2<HT≤0.5 m 7 = HT<0.2 m

CVR CODES 0= NONE 1= 0% < CVR ≤ 10% 2= 10 < CVR ≤ 25% 3= 25 < CVR ≤ 60% 4= CVR > 60%

STAND COMPOSITION:	BA:

SIZE CLASS ANALYSIS:	A	< 10	A	10 - 24	O	25 - 50	N	> 50
STANDING SNAGS:	A	< 10	O	10 - 24	R	25 - 50	N	> 50
DEADFALL / LOGS:	A	< 10	O	10 - 24	R	25 - 50	N	> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE :		PIONEER		YOUNG	X	MID-AGE		MATURE		OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g = G=
MOISTURE:	DEPTH OF ORGANICS:	(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:	(cm)

COMMUNITY CLASSIFICATION:

		ELC CODE
COMMUNITY CLASS:		
COMMUNITY SERIES:		
ECOSITE:		
VEGETATION TYPE:		
INCLUSION		
COMPLEX		

Notes:

ELC
STAND CHARACTERISTICS

SITE:	
POLYGON:	
DATE:	
SURVEYOR(S):	

TREE TALLY BY SPECIES:

PRISM FACTOR

SPECIES	TALLY 1	TALLY 2	TALLY 3	TALLY 4	TALLY 5	TOTAL	REL. AVG
TOTAL							100
BASAL AREA (BA)							
DEAD							

STAND COMPOSITION:

COMMUNITY PROFILE DIAGRAM

Notes:

ELC
SOILS ONTARIO

SITE:
POLYGON:
DATE:
SURVEYOR(S):

	P/A	PP	Dr	Position	Aspect	Slope %	Slope Type	Slope Class	UTM Z	UTM EASTING	UTM NORTHING
1											
2											
3											
4											
5											

SOIL	1	2	3	4	5
TEXTURE x HORIZON					
A TEXTURE					
COURSE FRAGMENTS					
B TEXTURE					
COURSE FRAGMENTS					
C TEXTURE					
COURSE FRAGMENTS					
EFFECTIVE TEXTURE					
SURFACE STONINESS					
SURFACE ROCKINESS					
DEPTH TO / OF					
MOTTLES					
GLEY					
BEDROCK					
WATER TABLE					
CARBONATES					
DEPTH OF ORGANICS					
PORE SIZE DISC #1					
PORE SIZE DISC #2					
MOISTURE REGIME					
SOIL SURVEY MAP					
LEGEND CLASS					

ELC
PLANT SPECIES LIST

SITE: Marathon
POLYGON: MAR011
DATE: July 8
SURVEYOR(S): ROM IK

LAYERS: 1 = CANOPY 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER
ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER 1	LAYER 2	LAYER 3	LAYER 4	COL.
PICGLAV	A	A	A	A	
PICMARI	R	R	R	R	
ABIBALS	R	O	O	O	
Salix			O	O	
Amelanchier			O	O	
VACANGU				A	
ROSACIC				O	

SPECIES CODE	LAYER 1	LAYER 2	LAYER 3	LAYER 4	COL.
CORCANA				A	
MAICANA				A	

ELC

MANAGEMENT / DISTURBANCE

SITE:
POLYGON:
DATE:
SURVEYOR(S):

DISTURBANCE / EXTENT	0	1	2	3	SCORE †
TIME SINCE LOGGING	> 30 YRS	15 - 30 YRS	5 - 15 YRS	0 - 5 YEARS	
INTENSITY OF LOGGING	NONE	FUEL WOOD	SELECTIVE	DIAMETER LIMIT	
EXTENT OF LOGGING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
SUGAR BUSH OPERATIONS	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF OPERATIONS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
GAPS IN FOREST CANOPY	NONE	SMALL	INTERMEDIATE	LARGE	
EXTENT OF GAPS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
LIVESTOCK (GRAZING)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF LIVESTOCK	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
ALIEN SPECIES	NONE	OCCASIONAL	ABUNDANT	DOMINANT	
EXTENT OF ALIEN SPECIES	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
PLANTING (PLANTATION)	NONE	OCCASIONAL	ABUNDANT	DOMINANT	
EXTENT OF PLANTING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
TRACKS AND TRAILS	NONE	FAINT TRAILS	WELL MARKED	TRACKS OR	
EXTENT OF TRACKS/TRAILS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
DUMPING (RUBBISH)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DUMPING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
EARTH DISPLACEMENT	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DISPLACEMENT	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
RECREATIONAL USE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF RECR. USE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
NOISE	NONE	SLIGHT	MODERATE	INTENSE	
EXTENT OF NOISE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
DISEASE/DEATH OF TREES	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DISEASE / DEATH	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
WIND THROW (BLOW DOWN)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF WIND THROW	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
BROWSE (e.g. DEER)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF BROWSE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
BEAVER ACTIVITY	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF BEAVER	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
FLOODING (pools & puddling)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF FLOODING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
FIRE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF FIRE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
ICE DAMAGE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF ICE DAMAGE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
OTHER	NONE	LIGHT	MODERATE	HEAVY	
EXTENT	NONE	LOCAL	WIDESPREAD	EXTENSIVE	

† INTENSITY x EXTENT = SCORE

ELC

WILDLIFE

SITE: Marathon
POLYGON: MAK 011
DATE: July 8
SURVEYOR(S): RDM DC
START TIME: END TIME:

TEMP (°C):	CLOUD (10th):	WIND:	PRECIPITATION:

CONDITIONS:

POTENTIAL WILDLIFE HABITAT:

	VERNAL POOLS		SNAGS
	HIBERNACULA		FALLEN LOGS

SPECIES LIST:

TY	SP. CODE	EV	NOTES	#	TY	SP. CODE	EV	NOTES	#

FAUNAL TYPE CODES (TY):
B = BIRD M = MAMMAL H = HERPETOFAUNA L = LEPIDOPTERA F = FISH O = OTHER

EVIDENCE CODES (EV):

BREEDING BIRD - POSSIBLE:
SH = SUITABLE HABITAT SM = SINGING MALE

BREEDING BIRD - PROBABLE:
T = TERRITORY D = DISPLAY P = PAIR
A = ANXIETY BEHAVIOUR N = NEST BUILDING V = VISITING NEST

BREEDING BIRD - CONFIRMED:
DD = DISTRACTION NU = USED NEST FY = FLEDGED YOUNG
NE = EGGS NY = YOUNG FS = FOOD/FAECAL SACK
AE = NEST ENTRY

OTHER WILDLIFE EVIDENCE:
OB = OBSERVED VO = VOCALIZATION CA = CARCASS
DP = DISTINCTIVE PARTS HO = HOUSE/DEN FY = EGGS OR YOUNG
TK = TRACKS FE = FEEDING EVIDENCE SC = SCAT
SI = OTHER SIGNS (specify)

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: Marathon		POLYGON: MAR012	
SURVEYOR(S): RDM DC	DATE: July 8	TIME: start	
		finish	
UTMZ:	UTME:	UTMN:	

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
G TERRESTRIAL	G ORGANIC	G LACUSTRINE	G NATURAL	G PLANKTON	G LAKE
G WETLAND	G MINERAL SOIL	G RIVERINE	G CULTURAL	G SUBMERGED	G POND
G AQUATIC	G PARENT MIN.	G BOTTOMLAND		G FLOATING-LVD.	G RIVER
	G ACIDIC BEDRK.	G TERRACE		G GRAMINOID	G STREAM
SITE	G BASIC BEDRK.	G VALLEY SLOPE	COVER	G FORB	G MARSH
G OPEN WATER	G CARB. BEDRK.	G TABLELAND	G OPEN	G LICHEN	G SWAMP
G SHALLOW WATER		G ROLL. UPLAND	G SHRUB	G BRYOPHYTE	G FEN
G SURFICIAL DEP.		G CLIFF	G TREED	G DECIDUOUS	G BOG
G BEDROCK		G TALUS		G CONIFEROUS	G BARREN
		G CREVICE / CAVE		G MIXED	G MEADOW
		G ALVAR			G PRAIRIE
		G ROCKLAND			G THICKET
		G BEACH / BAR			G SAVANNAH
		G SAND DUNE			G WOODLAND
		G BLUFF			G FOREST
					G PLANTATION

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (up to 4 sp) (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY			
2	SUB-CANOPY			
3	UNDERSTOREY			
4	GRD. LAYER	7	4	VACCINIUM > GRASS > DIELANT

HT CODES: 1 = >25 m 2 = 10<HT≤25 m 3 = 2<HT≤10 m 4 = 1<HT≤2 m 5 = 0.5<HT≤1 m 6 = 0.2<HT≤0.5 m 7 = HT<0.2 m

CVR CODES 0= NONE 1= 0% < CVR ≤ 10% 2= 10 < CVR ≤ 25% 3= 25 < CVR ≤ 60% 4= CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A	< 10	R	10 - 24	N	25 - 50	N	> 50
STANDING SNAGS:	R	< 10	R	10 - 24	N	25 - 50	N	> 50
DEADFALL / LOGS:	R	< 10	R	10 - 24	N	25 - 50	N	> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:		PIONEER	X	YOUNG		MID-AGE		MATURE		OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

		ELC CODE
COMMUNITY CLASS:		
COMMUNITY SERIES:		
ECOSITE:		
VEGETATION TYPE:		
INCLUSION		
COMPLEX		

Notes: Hydro Cut / Other cleared areas
Lots of remnant Forest stuff → blueberry, Clintonia, Maianthemum

ELC
STAND CHARACTERISTICS

SITE:	
POLYGON:	
DATE:	
SURVEYOR(S):	

TREE TALLY BY SPECIES:

PRISM FACTOR

SPECIES	TALLY 1	TALLY 2	TALLY 3	TALLY 4	TALLY 5	TOTAL	REL. AVG
TOTAL							100
BASAL AREA (BA)							
DEAD							

STAND COMPOSITION:

COMMUNITY PROFILE DIAGRAM

Notes:

ELC

SOILS ONTARIO

SITE:
POLYGON: MAR 012
DATE:
SURVEYOR(S):

	P/A	PP	Dr	Position	Aspect	Slope %	Type	Class	Z	UTM EASTING	UTM NORTHING
1											
2											
3											
4											
5											

SOIL	1	2	3	4	5
TEXTURE x HORIZON					
A TEXTURE					
COURSE FRAGMENTS					
B TEXTURE					
COURSE FRAGMENTS					
C TEXTURE					
COURSE FRAGMENTS					
EFFECTIVE TEXTURE					
SURFACE STONINESS					
SURFACE ROCKINESS					
DEPTH TO / OF					
MOTTLES					
GLEY					
BEDROCK					
WATER TABLE					
CARBONATES					
DEPTH OF ORGANICS					
PORE SIZE DISC #1					
PORE SIZE DISC #2					
MOISTURE REGIME					
SOIL SURVEY MAP					
LEGEND CLASS					

ELC
PLANT SPECIES LIST

SITE: Marathon
POLYGON: MAR 012
DATE: July 8
SURVEYOR(S): ROM DC

LAYERS: 1 = CANOPY 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER 1	2	3	4	COL.
PICGLAU			R	O	
POPTREM			R	R	
SORDECO				O	
RUBPUN				C	
DIELONI				A	
RUBUS				A	
ROSACIC				O	

SPECIES CODE	LAYER 1	2	3	4	COL.
CORCANA				A	
VA(ANGU)				A	
GRASS				A	
PRAVIRG				C	
Fireweed				O	
J-tooth cinq				O	
MAICANA				A	
orange hawkweed				O	
SOLNOT				O	
Aralia over.				O	
DRYCART				O	
RANACRI				O	
Sonchus				R	
VICCRAC				R	
SOLSUNC				R	
SOE CILIARE				O	
PTEAQUI				A	
HYPPERF				O	
TRIPRAT				O	
LEUVUL				O	

ELC
MANAGEMENT / DISTURBANCE

SITE:
POLYGON:
DATE:
SURVEYOR(S):

DISTURBANCE / EXTENT	0	1	2	3	SCORE †
TIME SINCE LOGGING	> 30 YRS	15 - 30 YRS	5 - 15 YRS	0 - 5 YEARS	
INTENSITY OF LOGGING	NONE	FUEL WOOD	SELECTIVE	DIAMETER LIMIT	
EXTENT OF LOGGING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
SUGAR BUSH OPERATIONS	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF OPERATIONS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
GAPS IN FOREST CANOPY	NONE	SMALL	INTERMEDIATE	LARGE	
EXTENT OF GAPS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
LIVESTOCK (GRAZING)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF LIVESTOCK	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
ALIEN SPECIES	NONE	OCCASIONAL	ABUNDANT	DOMINANT	
EXTENT OF ALIEN SPECIES	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
PLANTING (PLANTATION)	NONE	OCCASIONAL	ABUNDANT	DOMINANT	
EXTENT OF PLANTING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
TRACKS AND TRAILS	NONE	FAINT TRAILS	WELL MARKED	TRACKS OR	
EXTENT OF TRACKS/TRAILS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
DUMPING (RUBBISH)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DUMPING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
EARTH DISPLACEMENT	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DISPLACEMENT	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
RECREATIONAL USE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF RECR. USE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
NOISE	NONE	SLIGHT	MODERATE	INTENSE	
EXTENT OF NOISE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
DISEASE/DEATH OF TREES	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DISEASE / DEATH	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
WIND THROW (BLOW DOWN)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF WIND THROW	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
BROWSE (e.g. DEER)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF BROWSE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
BEAVER ACTIVITY	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF BEAVER	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
FLOODING (pools & puddling)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF FLOODING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
FIRE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF FIRE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
ICE DAMAGE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF ICE DAMAGE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
OTHER	NONE	LIGHT	MODERATE	HEAVY	
EXTENT	NONE	LOCAL	WIDESPREAD	EXTENSIVE	

† INTENSITY x EXTENT = SCORE

ELC
WILDLIFE

SITE: Marathon
POLYGON: Mar 012
DATE: July 8
SURVEYOR(S): RDM DC
START TIME: END TIME:

TEMP (°C): CLOUD (10th): WIND: PRECIPITATION:

CONDITIONS:

POTENTIAL WILDLIFE HABITAT:

	VERNAL POOLS		SNAGS
	HIBERNACULA		FALLEN LOGS

SPECIES LIST:

TY	SP. CODE	EV	NOTES	#	TY	SP. CODE	EV	NOTES	#

FAUNAL TYPE CODES (TY):
B = BIRD M = MAMMAL H = HERPETOFAUNA L = LEPIDOPTERA F = FISH O = OTHER

EVIDENCE CODES (EV):

BREEDING BIRD - POSSIBLE:
SH = SUITABLE HABITAT; SM = SINGING MALE

BREEDING BIRD - PROBABLE:
T = TERRITORY; D = DISPLAY; P = PAIR
A = ANXIETY BEHAVIOUR; N = NEST BUILDING; V = VISITING NEST

BREEDING BIRD - CONFIRMED:
DD = DISTRACTION; NU = USED NEST; FY = FLEDGED YOUNG
NE = EGGS; NY = YOUNG; FS = FOOD/FAECAL SACK
AE = NEST ENTRY

OTHER WILDLIFE EVIDENCE:
OB = OBSERVED; VO = VOCALIZATION; CA = CARCASS
DP = DISTINCTIVE PARTS; HO = HOUSE/DEN; FY = EGGS OR YOUNG
TK = TRACKS; FE = FEEDING EVIDENCE; SC = SCAT
SI = OTHER SIGNS (specify)

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: MAR ONT		POLYGON: Mosaic TS	
SURVEYOR(S): RDM DC	DATE: July 8	TIME: start	
		finish	
UTMZ:	UTME:	UTMN:	

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
G TERRESTRIAL G WETLAND G AQUATIC	G ORGANIC G MINERAL SOIL G PARENT MIN. G ACIDIC BEDRK. G BASIC BEDRK. G CARB. BEDRK.	G LACUSTRINE G RIVERINE G BOTTOMLAND G TERRACE G VALLEY SLOPE G TABLELAND G ROLL. UPLAND G CLIFF G TALUS G CREVICE / CAVE G ALVAR G ROCKLAND G BEACH / BAR G SAND DUNE G BLUFF	G NATURAL G CULTURAL	G PLANKTON G SUBMERGED G FLOATING-LVD. G GRAMINOID G FORB G LICHEN G BRYOPHYTE G DECIDUOUS G CONIFEROUS G MIXED	G LAKE G POND G RIVER G STREAM G MARSH G SWAMP G FEN G BOG G BARREN G MEADOW G PRAIRIE G THICKET G SAVANNAH G WOODLAND G FOREST G PLANTATION
SITE G OPEN WATER G SHALLOW WATER G SURFICIAL DEP. G BEDROCK			**COVER** G OPEN G SHRUB G TREED		

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (up to 4 sp) (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	4	BETPAP > ABIBAL > PICGLA > SOLUS
2	SUB-CANOPY	3	3	BETPAP > ABIBAL > SORUS > ACESPIC
3	UNDERSTOREY	4	3	ACESPIC > BETPAP > amelanchier
4	GRD. LAYER	6	4	CLEBOR > DRYCAR > ACESPIC > ARITRI

HT CODES: 1 = >25 m 2 = 10<HT≤25 m 3 = 2<HT≤10 m 4 = 1<HT≤2 m 5 = 0.5<HT≤1 m 6 = 0.2<HT≤0.5 m 7 = HT<0.2 m

CVR CODES 0= NONE 1= 0% < CVR ≤ 10% 2= 10 < CVR ≤ 25% 3= 25 < CVR ≤ 60% 4= CVR > 60%

STAND COMPOSITION:	BA:

SIZE CLASS ANALYSIS:	A	< 10	A	10 - 24	A	25 - 50	O	> 50
STANDING SNAGS:	A	< 10	A	10 - 24	O	25 - 50	N	> 50
DEADFALL / LOGS:	A	< 10	A	10 - 24	A	25 - 50	R	> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE :		PIONEER		YOUNG	X	MID-AGE		MATURE		OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

		ELC CODE
COMMUNITY CLASS:		
COMMUNITY SERIES:		
ECOSITE:		
VEGETATION TYPE:		
INCLUSION		
COMPLEX		

Notes:

ELC
STAND CHARACTERISTICS

SITE:	
POLYGON:	
DATE:	
SURVEYOR(S):	

TREE TALLY BY SPECIES:

PRISM FACTOR

SPECIES	TALLY 1	TALLY 2	TALLY 3	TALLY 4	TALLY 5	TOTAL	REL. AVG
TOTAL							100
BASAL AREA (BA)							
DEAD							

STAND COMPOSITION:

COMMUNITY PROFILE DIAGRAM

Notes:

ELC

SOILS ONTARIO

SITE:
POLYGON:
DATE:
SURVEYOR(S):

Slope UTM

	P/A	PP	Dr	Position	Aspect	%	Type	Class	Z	EASTING	NORTHING
1											
2											
3											
4											
5											

SOIL	1	2	3	4	5
TEXTURE x HORIZON					
A TEXTURE					
COURSE FRAGMENTS					
B TEXTURE					
COURSE FRAGMENTS					
C TEXTURE					
COURSE FRAGMENTS					
EFFECTIVE TEXTURE					
SURFACE STONINESS					
SURFACE ROCKINESS					
DEPTH TO / OF					
MOTTLES					
GLEY					
BEDROCK					
WATER TABLE					
CARBONATES					
DEPTH OF ORGANICS					
PORE SIZE DISC #1					
PORE SIZE DISC #2					
MOISTURE REGIME					
SOIL SURVEY MAP					
LEGEND CLASS					

ELC
PLANT SPECIES LIST

SITE: Marathon
POLYGON: 014
DATE: July 8
SURVEYOR(S): RDM DC

LAYERS: 1 = CANOPY 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER 1	2	3	4	COL.
ABIBALS		O	O	O	
BETPAP		A	A	A	
PICGLAU		O	O	O	
amelanchier			O	O	O
SAMNIGR					R
ROSACIC					R
VIBEDULE					R
DIELONI					A
ACESPIC			A	A	A
SORDECO			O	O	O

SPECIES CODE	LAYER 1	2	3	4	COL.
CLIBOREE				A	
CORCANA				O	
ORYCART				A	
MAICANA				O	
LYCANNO				O	
ARITRIP				A	
LYCOPENDe				O	

ELC

MANAGEMENT / DISTURBANCE

SITE:
POLYGON:
DATE:
SURVEYOR(S):

DISTURBANCE / EXTENT	0	1	2	3	SCORE †
TIME SINCE LOGGING	> 30 YRS	15 - 30 YRS	5 - 15 YRS	0 - 5 YEARS	
INTENSITY OF LOGGING	NONE	FUEL WOOD	SELECTIVE	DIAMETER LIMIT	
EXTENT OF LOGGING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
SUGAR BUSH OPERATIONS	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF OPERATIONS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
GAPS IN FOREST CANOPY	NONE	SMALL	INTERMEDIATE	LARGE	
EXTENT OF GAPS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
LIVESTOCK (GRAZING)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF LIVESTOCK	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
ALIEN SPECIES	NONE	OCCASIONAL	ABUNDANT	DOMINANT	
EXTENT OF ALIEN SPECIES	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
PLANTING (PLANTATION)	NONE	OCCASIONAL	ABUNDANT	DOMINANT	
EXTENT OF PLANTING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
TRACKS AND TRAILS	NONE	FAINT TRAILS	WELL MARKED	TRACKS OR	
EXTENT OF TRACKS/TRAILS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
DUMPING (RUBBISH)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DUMPING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
EARTH DISPLACEMENT	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DISPLACEMENT	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
RECREATIONAL USE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF RECR. USE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
NOISE	NONE	SLIGHT	MODERATE	INTENSE	
EXTENT OF NOISE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
DISEASE/DEATH OF TREES	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DISEASE / DEATH	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
WIND THROW (BLOW DOWN)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF WIND THROW	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
BROWSE (e.g. DEER)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF BROWSE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
BEAVER ACTIVITY	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF BEAVER	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
FLOODING (pools & puddling)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF FLOODING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
FIRE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF FIRE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
ICE DAMAGE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF ICE DAMAGE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
OTHER	NONE	LIGHT	MODERATE	HEAVY	
EXTENT	NONE	LOCAL	WIDESPREAD	EXTENSIVE	

† INTENSITY x EXTENT = SCORE

ELC

WILDLIFE

SITE: Marathon
POLYGON: 014
DATE: July 8
SURVEYOR(S): RDM DC
START TIME: END TIME:

TEMP (°C):	CLOUD (10th):	WIND:	PRECIPITATION:
CONDITIONS:			

POTENTIAL WILDLIFE HABITAT:

	VERNAL POOLS	X	SNAGS
	HIBERNACULA		FALLEN LOGS

SPECIES LIST:

TY	SP. CODE	EV	NOTES	#	TY	SP. CODE	EV	NOTES	#

FAUNAL TYPE CODES (TY):
B = BIRD M = MAMMAL H = HERPETOFAUNA L = LEPIDOPTERA F = FISH O = OTHER

EVIDENCE CODES (EV):

BREEDING BIRD - POSSIBLE:
SH = SUITABLE HABITAT SM = SINGING MALE

BREEDING BIRD - PROBABLE:
T = TERRITORY D = DISPLAY P = PAIR
A = ANXIETY BEHAVIOUR N = NEST BUILDING V = VISITING NEST

BREEDING BIRD - CONFIRMED:
DD = DISTRACTION NU = USED NEST FY = FLEDGED YOUNG
NE = EGGS NY = YOUNG FS = FOOD/FAECAL SACK
AE = NEST ENTRY

OTHER WILDLIFE EVIDENCE:
OB = OBSERVED VO = VOCALIZATION CA = CARCASS
DP = DISTINCTIVE PARTS HO = HOUSE/DEN FY = EGGS OR YOUNG
TK = TRACKS FE = FEEDING EVIDENCE SC = SCAT
SI = OTHER SIGNS (specify)

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: Marathon		POLYGON: MAR 082	
SURVEYOR(S): RDM, DC	DATE: JU19	TIME: start	
UTMZ:	UTME:	UTMN:	finish

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
G TERRESTRIAL	G ORGANIC	G LACUSTRINE	G NATURAL	G PLANKTON	G LAKE
G WETLAND	G MINERAL SOIL	G RIVERINE	G CULTURAL	G SUBMERGED	G POND
G AQUATIC	G PARENT MIN.	G BOTTOMLAND		G FLOATING-LVD.	G RIVER
	G ACIDIC BEDRK.	G TERRACE		G GRAMINOID	G STREAM
SITE	G BASIC BEDRK.	G VALLEY-SLOPE	COVER	G FORB	G MARSH
	G CARB. BEDRK.	G TABLELAND		G LICHEN	G SWAMP
G OPEN WATER		G ROLL. UPLAND	G OPEN	G BRYOPHYTE	G FEN
G SHALLOW WATER		G CLIFF	G SHRUB	G DECIDUOUS	G BOG
G SURFICIAL DEP.		G TALUS	G TREED	G CONIFEROUS	G BARREN
G BEDROCK		G CREVICE / CAVE		G MIXED	G MEADOW
		G ALVAR			G PRAIRIE
		G ROCKLAND			G THICKET
		G BEACH / BAR			G SAVANNAH
		G SAND DUNE			G WOODLAND
		G BLUFF			G FOREST
					G PLANTATION

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (up to 4 sp) (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	4		PINBANK > BETPAPY > PICGLAU
2	SUB-CANOPY	0		
3	UNDERSTOREY	3		ABIBALS > ACEglaucher > BETPAPY
4	GRD. LAYER	1		VIELONI > ARITRI > CORCANA > MAICANA

HT CODES: 1 = >25 m 2 = 10<HT<25 m 3 = 2<HT<10 m 4 = 1<HT<2 m 5 = 0.5<HT<1 m 6 = 0.2<HT<0.5 m 7 = HT<0.2 m

CVR CODES 0= NONE 1= 0% < CVR < 10% 2= 10 < CVR < 25% 3= 25 < CVR < 60% 4= CVR > 60%

STAND COMPOSITION:	BA:

SIZE CLASS ANALYSIS:	A	< 10	A	10 - 24	A	25 - 50	N	> 50
STANDING SNAGS:	A	< 10	O	10 - 24	O	25 - 50	N	> 50
DEADFALL / LOGS:	A	< 10	A	10 - 24	A	25 - 50	N	> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE :		PIONEER		YOUNG	X	MID-AGE		MATURE		OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

		ELC CODE
COMMUNITY CLASS:		
COMMUNITY SERIES:		
ECOSITE:		
VEGETATION TYPE:		
INCLUSION		
COMPLEX		

Notes:

ELC
STAND CHARACTERISTICS

SITE:	
POLYGON:	
DATE:	
SURVEYOR(S):	

TREE TALLY BY SPECIES:

PRISM FACTOR

SPECIES	TALLY 1	TALLY 2	TALLY 3	TALLY 4	TALLY 5	TOTAL	REL. AVG
TOTAL							100
BASAL AREA (BA)							
DEAD							

STAND COMPOSITION:

COMMUNITY PROFILE DIAGRAM

Notes:

ELC

SOILS ONTARIO

SITE:
POLYGON:
DATE:
SURVEYOR(S):

	P/A	PP	Dr	Position	Aspect	Slope %	Type	Class	Z	UTM EASTING	UTM NORTHING
1											
2											
3											
4											
5											

SOIL	1	2	3	4	5
TEXTURE x HORIZON					
A TEXTURE					
COURSE FRAGMENTS					
B TEXTURE					
COURSE FRAGMENTS					
C TEXTURE					
COURSE FRAGMENTS					
EFFECTIVE TEXTURE					
SURFACE STONINESS					
SURFACE ROCKINESS					
DEPTH TO / OF					
MOTTLES					
GLEY					
BEDROCK					
WATER TABLE					
CARBONATES					
DEPTH OF ORGANICS					
PORE SIZE DISC #1					
PORE SIZE DISC #2					
MOISTURE REGIME					
SOIL SURVEY MAP					
LEGEND CLASS					

ELC PLANT SPECIES LIST

SITE: Marathon
POLYGON: 020
DATE:
SURVEYOR(S):

LAYERS: 1 = CANOPY 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER 1	2	3	4	COL.
ABIBALS			A	A	
PINBANK	A		R	R	
BETPAP	O		O	O	
PICGLA	O		O	6	
PINRESI	R				
PRUPENN			O	O	
VACANG				O	
ROSACIC				O	
SORDECO			R	R	
Amelanchier			O		
VIBEDUL				R	
DIELONI				A	

SPECIES CODE	LAYER 1	2	3	4	COL.
CLIBORE				O	
ARITRI				X	
MONUNI				R	
LYCCIN				O	
MAICAN				O	
CORCAN				O	
LINBOR				O	
~~PYRAMER~~ PYRCHL				R	
TRIBOR				O	
ORTCAR				O	
GYMDRY				O	
PHECON				R	

pyrola

ELC

MANAGEMENT / DISTURBANCE

SITE:
POLYGON:
DATE:
SURVEYOR(S):

DISTURBANCE / EXTENT	0	1	2	3	SCORE †
TIME SINCE LOGGING	> 30 YRS	15 - 30 YRS	5 - 15 YRS	0 - 5 YEARS	
INTENSITY OF LOGGING	NONE	FUEL WOOD	SELECTIVE	DIAMETER LIMIT	
EXTENT OF LOGGING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
SUGAR BUSH OPERATIONS	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF OPERATIONS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
GAPS IN FOREST CANOPY	NONE	SMALL	INTERMEDIATE	LARGE	
EXTENT OF GAPS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
LIVESTOCK (GRAZING)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF LIVESTOCK	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
ALIEN SPECIES	NONE	OCCASIONAL	ABUNDANT	DOMINANT	
EXTENT OF ALIEN SPECIES	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
PLANTING (PLANTATION)	NONE	OCCASIONAL	ABUNDANT	DOMINANT	
EXTENT OF PLANTING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
TRACKS AND TRAILS	NONE	FAINT TRAILS	WELL MARKED	TRACKS OR	
EXTENT OF TRACKS/TRAILS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
DUMPING (RUBBISH)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DUMPING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
EARTH DISPLACEMENT	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DISPLACEMENT	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
RECREATIONAL USE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF RECR. USE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
NOISE	NONE	SLIGHT	MODERATE	INTENSE	
EXTENT OF NOISE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
DISEASE/DEATH OF TREES	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DISEASE / DEATH	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
WIND THROW (BLOW DOWN)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF WIND THROW	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
BROWSE (e.g. DEER)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF BROWSE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
BEAVER ACTIVITY	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF BEAVER	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
FLOODING (pools & puddling)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF FLOODING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
FIRE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF FIRE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
ICE DAMAGE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF ICE DAMAGE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
OTHER	NONE	LIGHT	MODERATE	HEAVY	
EXTENT	NONE	LOCAL	WIDESPREAD	EXTENSIVE	

† INTENSITY x EXTENT = SCORE

ELC

WILDLIFE

SITE: Marathon
POLYGON: 020
DATE: July 9
SURVEYOR(S): RDM DC
START TIME: END TIME:

TEMP (°C):	CLOUD (10th):	WIND:	PRECIPITATION:

CONDITIONS:

POTENTIAL WILDLIFE HABITAT:

	VERNAL POOLS		SNAGS
	HIBERNACULA		FALLEN LOGS

SPECIES LIST:

TY	SP. CODE	EV	NOTES	#	TY	SP. CODE	EV	NOTES	#

FAUNAL TYPE CODES (TY):
B = BIRD M = MAMMAL H = HERPETOFAUNA L = LEPIDOPTERA F = FISH O = OTHER

EVIDENCE CODES (EV):

BREEDING BIRD - POSSIBLE:
SH = SUITABLE HABITAT SM = SINGING MALE

BREEDING BIRD - PROBABLE:
T = TERRITORY D = DISPLAY P = PAIR
A = ANXIETY BEHAVIOUR N = NEST BUILDING V = VISITING NEST

BREEDING BIRD - CONFIRMED:
DD = DISTRACTION NU = USED NEST FY = FLEDGED YOUNG
NE = EGGS NY = YOUNG FS = FOOD/FAECAL SACK
AE = NEST ENTRY

OTHER WILDLIFE EVIDENCE:
OB = OBSERVED VO = VOCALIZATION CA = CARCASS
DP = DISTINCTIVE PARTS HO = HOUSE/DEN FY = EGGS OR YOUNG
TK = TRACKS FE = FEEDING EVIDENCE SC = SCAT
SI = OTHER SIGNS (specify)

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: Marathon		POLYGON: ~~MAR050~~ 022	
SURVEYOR(S): RDM DC	DATE: July 4	TIME: start	
		finish	
UTMZ:	UTME:	UTMN:	

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
G TERRESTRIAL	G ORGANIC	G LACUSTRINE	G NATURAL	G PLANKTON	G LAKE
G WETLAND	G MINERAL SOIL	G RIVERINE	G CULTURAL	G SUBMERGED	G POND
G AQUATIC	G PARENT MIN.	G BOTTOMLAND		G FLOATING-LVD.	G RIVER
	G ACIDIC BEDRK.	G TERRACE		G GRAMINOID	G STREAM
	G BASIC BEDRK.	G VALLEY SLOPE		G FORB	G MARSH
	G CARB. BEDRK.	G TABLELAND		G LICHEN	G SWAMP
		G ROLL. UPLAND		G BRYOPHYTE	G FEN
		G CLIFF		G DECIDUOUS	G BOG
		G TALUS		G CONIFEROUS	G BARREN
		G CREVICE / CAVE		G MIXED	G MEADOW
		G ALVAR			G PRAIRIE
		G ROCKLAND			G THICKET
		G BEACH / BAR			G SAVANNAH
		G SAND DUNE			G WOODLAND
		G BLUFF			G FOREST
					G PLANTATION

SITE	COVER
G OPEN WATER	G OPEN
G SHALLOW WATER	G SHRUB
G SURFICIAL DEP.	G TREED
G BEDROCK	

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (up to 4 sp) (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	2	4	PICMARI >> LARLARI
2	SUB-CANOPY	3	1	PICMARI >> BETPAPY
3	UNDERSTOREY	4	1	
4	GRD. LAYER	6	3	CARTRES > MAITRI = GALLHIS

HT CODES: 1 = >25 m 2 = 10<HT 25 m 3 = 2<HT 10 m 4 = 1<HT 2 m 5 = 0.5<HT 1 m 6 = 0.2<HT 0.5 m 7 = HT<0.2 m

CVR CODES 0= NONE 1= 0% < CVR 10% 2= 10 < CVR 25% 3= 25 < CVR 60% 4= CVR > 60%

STAND COMPOSITION: BA:

SIZE CLASS ANALYSIS:	A	< 10	A	10 - 24	A	25 - 50	N	> 50
STANDING SNAGS:	A	< 10	R	10 - 24	R	25 - 50	N	> 50
DEADFALL / LOGS:	A	< 10	A	10 - 24	O	25 - 50	N	> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:		PIONEER		YOUNG	X	MID-AGE		MATURE		OLD GROWTH

SOIL ANALYSIS:

TEXTURE: Org.	DEPTH TO MOTTLES / GLEY	g =	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

		ELC CODE
COMMUNITY CLASS:		
COMMUNITY SERIES:		
ECOSITE:		
VEGETATION TYPE:		
INCLUSION		
COMPLEX		

Notes:

ELC
STAND CHARACTERISTICS

SITE:	
POLYGON:	
DATE:	
SURVEYOR(S):	

TREE TALLY BY SPECIES:

PRISM FACTOR

SPECIES	TALLY 1	TALLY 2	TALLY 3	TALLY 4	TALLY 5	TOTAL	REL. AVG
TOTAL							100
BASAL AREA (BA)							
DEAD							

STAND COMPOSITION:

COMMUNITY PROFILE DIAGRAM

Notes:

ELC

SOILS ONTARIO

SITE:
POLYGON: MAR 027
DATE:
SURVEYOR(S):

	P/A	PP	Dr	Position	Aspect	Slope %	Type	Class	Z	UTM EASTING	UTM NORTHING
1											
2											
3											
4											
5											

SOIL	1	2	3	4	5
TEXTURE x HORIZON					
A TEXTURE					
COURSE FRAGMENTS					
B TEXTURE					
COURSE FRAGMENTS					
C TEXTURE					
COURSE FRAGMENTS					
EFFECTIVE TEXTURE					
SURFACE STONINESS					
SURFACE ROCKINESS					
DEPTH TO / OF					
MOTTLES					
GLEY					
BEDROCK					
WATER TABLE					
CARBONATES					
DEPTH OF ORGANICS					
PORE SIZE DISC #1					
PORE SIZE DISC #2					
MOISTURE REGIME					
SOIL SURVEY MAP					
LEGEND CLASS					

ELC

PLANT SPECIES LIST

SITE: Marathon
POLYGON: 022
DATE: July 9
SURVEYOR(S): ROM OC

LAYERS: 1 = CANOPY 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER 1	2	3	4	COL.
PICMAR	A	A	A	A	
PICGLA	R	R	R	R	
LARLAR	R	R	R	R	
BETPAP		R	R	R	
SORDECO			O	O	
TIBEDL				O	
amelanchier			O	O	
VACANGU				O	
CORINVO				R	
ROSACIC				R	
RHOGRE				O	

SPECIES CODE	LAYER 1	2	3	4	COL.
CORCAN				A	
EQUSYLV				O	
CARTRIS				A	
GEUM RIVA				O	
GAULTSP				A	
LYCOPODIUM SP				O	
RIBPUB				O	
MAITRIF				A	

ELC

MANAGEMENT / DISTURBANCE

SITE:
POLYGON:
DATE:
SURVEYOR(S):

DISTURBANCE / EXTENT	0	1	2	3	SCORE †
TIME SINCE LOGGING	30 YRS	15 - 30 YRS	5 - 15 YRS	0 - 5 YEARS	
INTENSITY OF LOGGING	NONE	FUEL WOOD	SELECTIVE	DIAMETER LIMIT	
EXTENT OF LOGGING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
SUGAR BUSH OPERATIONS	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF OPERATIONS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
GAPS IN FOREST CANOPY	NONE	SMALL	INTERMEDIATE	LARGE	
EXTENT OF GAPS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
LIVESTOCK (GRAZING)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF LIVESTOCK	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
ALIEN SPECIES	NONE	OCCASIONAL	ABUNDANT	DOMINANT	
EXTENT OF ALIEN SPECIES	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
PLANTING (PLANTATION)	NONE	OCCASIONAL	ABUNDANT	DOMINANT	
EXTENT OF PLANTING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
TRACKS AND TRAILS	NONE	FAINT TRAILS	WELL MARKED	TRACKS OR	
EXTENT OF TRACKS/TRAILS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
DUMPING (RUBBISH)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DUMPING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
EARTH DISPLACEMENT	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DISPLACEMENT	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
RECREATIONAL USE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF RECR. USE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
NOISE	NONE	SLIGHT	MODERATE	INTENSE	
EXTENT OF NOISE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
DISEASE/DEATH OF TREES	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DISEASE / DEATH	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
WIND THROW (BLOW DOWN)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF WIND THROW	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
BROWSE (e.g. DEER)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF BROWSE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
BEAVER ACTIVITY	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF BEAVER	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
FLOODING (pools & puddling)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF FLOODING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
FIRE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF FIRE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
ICE DAMAGE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF ICE DAMAGE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
OTHER	NONE	LIGHT	MODERATE	HEAVY	
EXTENT	NONE	LOCAL	WIDESPREAD	EXTENSIVE	

† INTENSITY x EXTENT = SCORE

ELC

WILDLIFE

SITE: Martin
POLYGON: 022
DATE: July 9
SURVEYOR(S): RDM DC
START TIME: END TIME:

TEMP (°C):	CLOUD (10th):	WIND:	PRECIPITATION:

CONDITIONS:

POTENTIAL WILDLIFE HABITAT:

	VERNAL POOLS		SNAGS
	HIBERNACULA	X	FALLEN LOGS

SPECIES LIST:

TY	SP. CODE	EV	NOTES	#	TY	SP. CODE	EV	NOTES	#

FAUNAL TYPE CODES (TY):
B = BIRD M = MAMMAL H = HERPETOFAUNA L = LEPIDOPTERA F = FISH O = OTHER

EVIDENCE CODES (EV):

BREEDING BIRD - POSSIBLE:
SH = SUITABLE HABITAT SM = SINGING MALE

BREEDING BIRD - PROBABLE:
T = TERRITORY D = DISPLAY P = PAIR
A = ANXIETY BEHAVIOUR N = NEST BUILDING V = VISITING NEST

BREEDING BIRD - CONFIRMED:
DD = DISTRACTION NU = USED NEST FY = FLEDGED YOUNG
NE = EGGS NY = YOUNG FS = FOOD/FAECAL SACK
AE = NEST ENTRY

OTHER WILDLIFE EVIDENCE:
OB = OBSERVED VO = VOCALIZATION CA = CARCASS
DP = DISTINCTIVE PARTS HO = HOUSE/DEN FY = EGGS OR YOUNG
TK = TRACKS FE = FEEDING EVIDENCE SC = SCAT
SI = OTHER SIGNS (specify)

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: Marathon | POLYGON: 030
SURVEYOR(S): RDM, DC | DATE: July 9 | TIME: start / finish
UTMZ: | UTME: | UTMN:

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
G TERRESTRIAL	G ORGANIC	G LACUSTRINE	G NATURAL	G PLANKTON	G LAKE
G WETLAND	G MINERAL SOIL	G RIVERINE	G CULTURAL	G SUBMERGED	G POND
G AQUATIC	G PARENT MIN.	G BOTTOMLAND		G FLOATING-LVD.	G RIVER
	G ACIDIC BEDRK.	G TERRACE		G GRAMINOID	G STREAM
SITE	G BASIC BEDRK.	G VALLEY SLOPE	**COVER**	G FORB	G MARSH
	G CARB. BEDRK.	G TABLELAND		G LICHEN	G SWAMP
G OPEN WATER		G ROLL. UPLAND	G OPEN	G BRYOPHYTE	G FEN
G SHALLOW WATER		G CLIFF	G SHRUB	G DECIDUOUS	G BOG
G SURFICIAL DEP.		G TALUS	G TREED	G CONIFEROUS	G BARREN
G BEDROCK		G CREVICE / CAVE		G MIXED	G MEADOW
		G ALVAR			G PRAIRIE
		G ROCKLAND			G THICKET
		G BEACH / BAR			G SAVANNAH
		G SAND DUNE			G WOODLAND
		G BLUFF			G FOREST
					G PLANTATION

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (up to 4 sp) (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	1	4	BETPAPY > PICGLAU
2	SUB-CANOPY	3	3	ABIBALS > ACESPIC
3	UNDERSTOREY	3	3	ACESPIC > ABIBALS > SORDECO
4	GRD. LAYER	6	4	CLTBOR/E > Lycopodium > ACESPIC > ARANUD

HT CODES: 1 = >25 m | 2 = 10<HT≤25 m | 3 = 2<HT≤10 m | 4 = 1<HT≤2 m | 5 = 0.5<HT≤1 m | 6 = 0.2<HT≤0.5 m | 7 = HT≤0.2 m

CVR CODES: 0 = NONE | 1 = 0% < CVR ≤ 10% | 2 = 10 < CVR ≤ 25% | 3 = 25 < CVR ≤ 60% | 4 = CVR > 60%

STAND COMPOSITION: | BA:

SIZE CLASS ANALYSIS:	A	< 10	A	10 - 24	A	25 - 50	C	> 50
STANDING SNAGS:	A	< 10	A	10 - 24	A	25 - 50	R	> 50
DEADFALL / LOGS:	A	< 10	A	10 - 24	A	25 - 50	O	> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE:		PIONEER		YOUNG		MID-AGE	X	MATURE		OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

		ELC CODE
COMMUNITY CLASS:		
COMMUNITY SERIES:		
ECOSITE:		
VEGETATION TYPE:		
INCLUSION		
COMPLEX		

Notes: Most mature forest on site, quite different (rest of site pretty uniform)

ELC
STAND CHARACTERISTICS

SITE:
POLYGON:
DATE:
SURVEYOR(S):

TREE TALLY BY SPECIES:

PRISM FACTOR:

SPECIES	TALLY 1	TALLY 2	TALLY 3	TALLY 4	TALLY 5	TOTAL	REL. AVG
TOTAL							100
BASAL AREA (BA)							
DEAD							

STAND COMPOSITION:

COMMUNITY PROFILE DIAGRAM

Notes:

ELC

SOILS ONTARIO

SITE:
POLYGON:
DATE:
SURVEYOR(S):

	P/A	PP	Dr	Position	Aspect	Slope %	Type	Class	Z	UTM EASTING	UTM NORTHING
1											
2											
3											
4											
5											

SOIL	1	2	3	4	5
TEXTURE x HORIZON					
A TEXTURE					
COURSE FRAGMENTS					
B TEXTURE					
COURSE FRAGMENTS					
C TEXTURE					
COURSE FRAGMENTS					
EFFECTIVE TEXTURE					
SURFACE STONINESS					
SURFACE ROCKINESS					
DEPTH TO / OF					
MOTTLES					
GLEY					
BEDROCK					
WATER TABLE					
CARBONATES					
DEPTH OF ORGANICS					
PORE SIZE DISC #1					
PORE SIZE DISC #2					
MOISTURE REGIME					
SOIL SURVEY MAP					
LEGEND CLASS					

ELC

PLANT SPECIES LIST

SITE: Marathon
POLYGON: MAR030
DATE: July 9
SURVEYOR(S): RDM DC

LAYERS: 1 = CANOPY 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

SPECIES CODE	LAYER 1	2	3	4	COL.
BETPAPY	A	A	A	A	
BET hybrid	R				
PICGLA	O	O	O	O	
ACESPIC		A	A	A	
ARIDSALS		A	A	A	
LONCANA				O	
SORDECO				O	
VIBEDI				O	
DIELONT				O	

SPECIES CODE	LAYER 1	2	3	4	COL.
CYCOEND				A	
CYCAMO				A	
CLIBORE				A	
CIRCANA				O	
DRYCAR+				O	
TRIBORE				O	
ATHFILI				O	
ARANUD				O	
DRYINTE				O	
GYMDRYA				R	

ELC

MANAGEMENT / DISTURBANCE

SITE:
POLYGON:
DATE:
SURVEYOR(S):

DISTURBANCE / EXTENT	0	1	2	3	SCORE †
TIME SINCE LOGGING	> 30 YRS	15 - 30 YRS	5 - 15 YRS	0 - 5 YEARS	
INTENSITY OF LOGGING	NONE	FUEL WOOD	SELECTIVE	DIAMETER LIMIT	
EXTENT OF LOGGING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
SUGAR BUSH OPERATIONS	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF OPERATIONS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
GAPS IN FOREST CANOPY	NONE	SMALL	INTERMEDIATE	LARGE	
EXTENT OF GAPS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
LIVESTOCK (GRAZING)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF LIVESTOCK	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
ALIEN SPECIES	NONE	OCCASIONAL	ABUNDANT	DOMINANT	
EXTENT OF ALIEN SPECIES	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
PLANTING (PLANTATION)	NONE	OCCASIONAL	ABUNDANT	DOMINANT	
EXTENT OF PLANTING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
TRACKS AND TRAILS	NONE	FAINT TRAILS	WELL MARKED	TRACKS OR	
EXTENT OF TRACKS/TRAILS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
DUMPING (RUBBISH)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DUMPING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
EARTH DISPLACEMENT	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DISPLACEMENT	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
RECREATIONAL USE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF RECR. USE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
NOISE	NONE	SLIGHT	MODERATE	INTENSE	
EXTENT OF NOISE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
DISEASE/DEATH OF TREES	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DISEASE / DEATH	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
WIND THROW (BLOW DOWN)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF WIND THROW	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
BROWSE (e.g. DEER)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF BROWSE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
BEAVER ACTIVITY	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF BEAVER	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
FLOODING (pools & puddling)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF FLOODING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
FIRE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF FIRE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
ICE DAMAGE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF ICE DAMAGE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
OTHER	NONE	LIGHT	MODERATE	HEAVY	
EXTENT	NONE	LOCAL	WIDESPREAD	EXTENSIVE	

† INTENSITY x EXTENT = SCORE

ELC

WILDLIFE

SITE: Marathon
POLYGON: MAR 050
DATE: Jul 9
SURVEYOR(S): RDM DC
START TIME:
END TIME:

TEMP (°C):	CLOUD (10th):	WIND:	PRECIPITATION:
CONDITIONS:			

POTENTIAL WILDLIFE HABITAT:

	VERNAL POOLS	X	SNAGS
	HIBERNACULA	X	FALLEN LOGS

SPECIES LIST:

TY	SP. CODE	EV	NOTES	#	TY	SP. CODE	EV	NOTES	#

FAUNAL TYPE CODES (TY):
B = BIRD M = MAMMAL H = HERPETOFAUNA L = LEPIDOPTERA F = FISH O = OTHER

EVIDENCE CODES (EV):

BREEDING BIRD - POSSIBLE:
SH = SUITABLE HABITAT SM = SINGING MALE

BREEDING BIRD - PROBABLE:
T = TERRITORY D = DISPLAY P = PAIR
A = ANXIETY BEHAVIOUR N = NEST BUILDING V = VISITING NEST

BREEDING BIRD - CONFIRMED:
DD = DISTRACTION NU = USED NEST FY = FLEDGED YOUNG
NE = EGGS NY = YOUNG FS = FOOD/FAECAL SACK
AE = NEST ENTRY

OTHER WILDLIFE EVIDENCE:
OB = OBSERVED VO = VOCALIZATION CA = CARCASS
DP = DISTINCTIVE PARTS HO = HOUSE/DEN FY = EGGS OR YOUNG
TK = TRACKS FE = FEEDING EVIDENCE SC = SCAT
SI = OTHER SIGNS (specify)

ELC
COMMUNITY DESCRIPTION & CLASSIFICATION

SITE: Marathon		POLYGON: 151	
SURVEYOR(S): RDM DC	DATE: July 9	TIME: start	
		finish	
UTMZ:	UTME:	UTMN:	

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
G TERRESTRIAL	G ORGANIC	G LACUSTRINE	G NATURAL	G PLANKTON	G LAKE
G WETLAND	G MINERAL SOIL	G RIVERINE	G CULTURAL	G SUBMERGED	G POND
G AQUATIC	G PARENT MIN.	G BOTTOMLAND		G FLOATING-LVD.	G RIVER
	G ACIDIC BEDRK.	G TERRACE		G GRAMINOID	G STREAM
	G BASIC BEDRK.	G VALLEY SLOPE		G FORB	G MARSH
	G CARB. BEDRK.	G TABLELAND		G LICHEN	G SWAMP
		G ROLL. UPLAND		G BRYOPHYTE	G FEN
		G CLIFF		G DECIDUOUS	G BOG
		G TALUS		G CONIFEROUS	G BARREN
		G CREVICE / CAVE		G MIXED	G MEADOW
		G ALVAR			G PRAIRIE
		G ROCKLAND			G THICKET
		G BEACH / BAR			G SAVANNAH
		G SAND DUNE			G WOODLAND
		G BLUFF			G FOREST
					G PLANTATION

SITE	COVER
G OPEN WATER	G OPEN
G SHALLOW WATER	G SHRUB
G SURFICIAL DEP.	G TREED
G BEDROCK	

STAND DESCRIPTION:

	LAYER	HT	CVR	SPECIES IN ORDER OF DECREASING DOMINANCE (up to 4 sp) (>> MUCH GREATER THAN; > GREATER THAN; = ABOUT EQUAL TO)
1	CANOPY	3	1	
2	SUB-CANOPY	4	1	
3	UNDERSTOREY	5	1	
4	GRD. LAYER	6	3	Grass > AMARB = SILVUL = TRICAM

HT CODES: 1 = >25 m 2 = 10<HT≤25 m 3 = 2<HT≤10 m 4 = 1<HT≤2 m 5 = 0.5<HT≤1 m 6 = 0.2<HT≤0.5 m 7 = HT<0.2 m

CVR CODES 0= NONE 1= 0% < CVR ≤ 10% 2= 10 < CVR ≤ 25% 3= 25 < CVR ≤ 60% 4= CVR > 60%

STAND COMPOSITION:	BA:

SIZE CLASS ANALYSIS:	A	< 10	R	10 - 24	R	25 - 50	R	> 50
STANDING SNAGS:	O	< 10	R	10 - 24	R	25 - 50	R	> 50
DEADFALL / LOGS:	O	< 10	R	10 - 24	R	25 - 50	R	> 50

ABUNDANCE CODES: N = NONE R = RARE O = OCCASIONAL A = ABUNDANT

COMM. AGE :		PIONEER		YOUNG	X	MID-AGE		MATURE		OLD GROWTH

SOIL ANALYSIS:

TEXTURE:	DEPTH TO MOTTLES / GLEY	g =	G=
MOISTURE:	DEPTH OF ORGANICS:		(cm)
HOMOGENEOUS / VARIABLE	DEPTH TO BEDROCK:		(cm)

COMMUNITY CLASSIFICATION:

		ELC CODE
COMMUNITY CLASS:		
COMMUNITY SERIES:		
ECOSITE:		
VEGETATION TYPE:		
INCLUSION		
COMPLEX		

Notes: Gravel Pits

ELC
STAND CHARACTERISTICS

SITE:	
POLYGON:	
DATE:	
SURVEYOR(S):	

TREE TALLY BY SPECIES:

PRISM FACTOR

SPECIES	TALLY 1	TALLY 2	TALLY 3	TALLY 4	TALLY 5	TOTAL	REL. AVG
TOTAL							100
BASAL AREA (BA)							
DEAD							

STAND COMPOSITION:

COMMUNITY PROFILE DIAGRAM

Notes:

ELC

SOILS ONTARIO

SITE:
POLYGON:
DATE:
SURVEYOR(S):

Slope | UTM

	P/A	PP	Dr	Position	Aspect	%	Type	Class	Z	EASTING	NORTHING
1											
2											
3											
4											
5											

SOIL	1	2	3	4	5
TEXTURE x HORIZON					
A TEXTURE					
COURSE FRAGMENTS					
B TEXTURE					
COURSE FRAGMENTS					
C TEXTURE					
COURSE FRAGMENTS					
EFFECTIVE TEXTURE					
SURFACE STONINESS					
SURFACE ROCKINESS					
DEPTH TO / OF					
MOTTLES					
GLEY					
BEDROCK					
WATER TABLE					
CARBONATES					
DEPTH OF ORGANICS					
PORE SIZE DISC #1					
PORE SIZE DISC #2					
MOISTURE REGIME					
SOIL SURVEY MAP					
LEGEND CLASS					

ELC

PLANT SPECIES LIST

SITE: Marathon
POLYGON: C31
DATE: Jul 9
SURVEYOR(S): RDM DC

LAYERS: 1 = CANOPY 2 = SUB-CANOPY 3 = UNDERSTOREY 4 = GROUND (GRD.) LAYER

ABUNDANCE CODES: R = RARE O = OCCASIONAL A = ABUNDANT D = DOMINANT

Maybe planted →

SPECIES CODE	LAYER 1	2	3	4	COL.
PICGLAU			R	R	
BETPAPY		R	R	R	
PINREST	R	R			
POPTREM	R	R	R	R	
POPBALS				R	
PINBANK	R	R	R		
ABIBALS		R	R		
RUB_SP				O	
DIELONI				O	
Salix			R	R	
ROSACIC				O	
SAMNIGR				O	
PTEAQUI				G	
ANAMARG				A	
SILVULG				A	
TRICAMP				A	
SOLIALT				O	
CLEVULG				G	
FRAVIRG				O	
TRIREPE				G	
APOANDR				O	
TRIPRAT				G	
PILAURE				A	
EURMACR				O	
MELALBU				G	
ACHMILL				U	
SOLIHIS				O	
VICCRAC				O	

SPECIES CODE	LAYER 1	2	3	4	COL.

ELC

MANAGEMENT / DISTURBANCE

SITE:
POLYGON:
DATE:
SURVEYOR(S):

DISTURBANCE / EXTENT	0	1	2	3	SCORE †
TIME SINCE LOGGING	> 30 YRS	15 - 30 YRS	5 - 15 YRS	0 - 5 YEARS	
INTENSITY OF LOGGING	NONE	FUEL WOOD	SELECTIVE	DIAMETER LIMIT	
EXTENT OF LOGGING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
SUGAR BUSH OPERATIONS	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF OPERATIONS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
GAPS IN FOREST CANOPY	NONE	SMALL	INTERMEDIATE	LARGE	
EXTENT OF GAPS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
LIVESTOCK (GRAZING)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF LIVESTOCK	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
ALIEN SPECIES	NONE	OCCASIONAL	ABUNDANT	DOMINANT	
EXTENT OF ALIEN SPECIES	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
PLANTING (PLANTATION)	NONE	OCCASIONAL	ABUNDANT	DOMINANT	
EXTENT OF PLANTING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
TRACKS AND TRAILS	NONE	FAINT TRAILS	WELL MARKED	TRACKS OR	
EXTENT OF TRACKS/TRAILS	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
DUMPING (RUBBISH)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DUMPING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
EARTH DISPLACEMENT	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DISPLACEMENT	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
RECREATIONAL USE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF RECR. USE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
NOISE	NONE	SLIGHT	MODERATE	INTENSE	
EXTENT OF NOISE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
DISEASE/DEATH OF TREES	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF DISEASE / DEATH	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
WIND THROW (BLOW DOWN)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF WIND THROW	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
BROWSE (e.g. DEER)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF BROWSE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
BEAVER ACTIVITY	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF BEAVER	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
FLOODING (pools & puddling)	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF FLOODING	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
FIRE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF FIRE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
ICE DAMAGE	NONE	LIGHT	MODERATE	HEAVY	
EXTENT OF ICE DAMAGE	NONE	LOCAL	WIDESPREAD	EXTENSIVE	
OTHER	NONE	LIGHT	MODERATE	HEAVY	
EXTENT	NONE	LOCAL	WIDESPREAD	EXTENSIVE	

† INTENSITY x EXTENT = SCORE

ELC

WILDLIFE

SITE: Marathon
POLYGON: 031
DATE: July 9
SURVEYOR(S): RDM DC
START TIME:
END TIME:

TEMP (°C):	CLOUD (10th):	WIND:	PRECIPITATION:
CONDITIONS:			

POTENTIAL WILDLIFE HABITAT:

	VERNAL POOLS		SNAGS
	HIBERNACULA		FALLEN LOGS

SPECIES LIST:

TY	SP. CODE	EV	NOTES	#	TY	SP. CODE	EV	NOTES	#

FAUNAL TYPE CODES (TY):
B = BIRD M = MAMMAL H = HERPETOFAUNA L = LEPIDOPTERA F = FISH O = OTHER

EVIDENCE CODES (EV):

BREEDING BIRD - POSSIBLE:
SH = SUITABLE HABITAT SM = SINGING MALE

BREEDING BIRD - PROBABLE:
T = TERRITORY D = DISPLAY P = PAIR
A = ANXIETY BEHAVIOUR N = NEST BUILDING V = VISITING NEST

BREEDING BIRD - CONFIRMED:
DD = DISTRACTION NU = USED NEST FY = FLEDGED YOUNG
NE = EGGS NY = YOUNG FS = FOOD/FAECAL SACK
AE = NEST ENTRY

OTHER WILDLIFE EVIDENCE:
OB = OBSERVED VO = VOCALIZATION CA = CARCASS
DP = DISTINCTIVE PARTS HO = HOUSE/DEN FY = EGGS OR YOUNG
TK = TRACKS FE = FEEDING EVIDENCE SC = SCAT
SI = OTHER SIGNS (specify)

APPENDIX C –Ontario Bird Breeding Atlas Records for 16EU49

Species list for square 16EU49 (number of entries returned: 89)

Region	Square	Species	Breeding Evidence				Point Counts			
			Max BE	Categ	#Sq	Atlasser Name	#PC	%PC	Abun	#Sq
37	16EU49	American Black Duck	FY	CONF	1	William S. Climie				
37	16EU49	Mallard	P	PROB	1	William S. Climie				
37	16EU49	Blue-winged Teal	H	POSS	1	William S. Climie	1	3.03	0.0303	1
37	16EU49	Ring-necked Duck	H	POSS	1	Glenn Coady				
37	16EU49	Common Goldeneye	FY	CONF	1	William S. Climie				
37	16EU49	Common Merganser	P	PROB	1	William S. Climie				
37	16EU49	Red-breasted Merganser	P	PROB	1	William S. Climie	1	3.03	0.0303	1
37	16EU49	Ruffed Grouse	S	POSS	1	William S. Climie				
37	16EU49	American Bittern	T	PROB	1	William S. Climie				
37	16EU49	Osprey	H	POSS	1	Glenn Coady				
37	16EU49	Bald Eagle	H	POSS	1	William S. Climie				
37	16EU49	Northern Harrier	H	POSS	1	William S. Climie				
37	16EU49	Broad-winged Hawk	FY	CONF	1	Ted Armstrong				
37	16EU49	Merlin	FY	CONF	1	William S. Climie				
37	16EU49	Virginia Rail	T	PROB	1	William S. Climie				
37	16EU49	Sora	T	PROB	1	William S. Climie				
37	16EU49	American Coot	S	POSS	1	William S. Climie				
37	16EU49	Killdeer	S	POSS	1	William S. Climie	1	3.03	0.0303	1
37	16EU49	Spotted Sandpiper	P	PROB	1	William S. Climie				
37	16EU49	Common Snipe	S	POSS	1	2 atlassers				
37	16EU49	Ring-billed Gull	NE	CONF	1		1	3.03	0.0909	1
37	16EU49	Herring Gull	NE	CONF	1		7	21.21	20.0909	1
37	16EU49	Mourning Dove	T	PROB	1	William S. Climie	2	6.06	0.0909	1
37	16EU49	Ruby-throated Hummingbird	V	PROB	1	William S. Climie	1	3.03	0.0303	1

37	16EU49	Belted Kingfisher	T	PROB	1	William S. Climie				
37	16EU49	Yellow-bellied Sapsucker	H	POSS	1	William S. Climie	3	9.09	0.1212	1
37	16EU49	Downy Woodpecker	CF	CONF	1	William S. Climie				
37	16EU49	Hairy Woodpecker	H	POSS	1	2 atlassers				
37	16EU49	Northern Flicker	AE	CONF	1	Glenn Coady	3	9.09	0.0909	1
37	16EU49	Pileated Woodpecker	NY	CONF	1	William S. Climie	1	3.03	0.0303	1
37	16EU49	Yellow-bellied Flycatcher	S	POSS	1	Glenn Coady				
37	16EU49	Alder Flycatcher	T	PROB	1	William S. Climie	3	9.09	0.1212	1
37	16EU49	Least Flycatcher	S	POSS	1	William S. Climie	2	6.06	0.0606	1
37	16EU49	Blue-headed Vireo	S	POSS	1	William S. Climie	1	3.03	0.0303	1
37	16EU49	Philadelphia Vireo	S	POSS	1	William S. Climie	1	3.03	0.0303	1
37	16EU49	Red-eyed Vireo	S	POSS	1	2 atlassers	6	18.18	0.1818	1
37	16EU49	Gray Jay	FY	CONF	1	William S. Climie				
37	16EU49	Blue Jay	T	PROB	1	William S. Climie				
37	16EU49	American Crow	FY	CONF	1	William S. Climie	21	63.64	0.9091	1
37	16EU49	Common Raven	T	PROB	1	William S. Climie	13	39.39	0.5758	1
37	16EU49	Tree Swallow	V	PROB	1	William S. Climie	3	9.09	0.2424	1
37	16EU49	Cliff Swallow	H	POSS	1	William S. Climie				
37	16EU49	Black-capped Chickadee	P	PROB	1	William S. Climie	1	3.03	0.0303	1
37	16EU49	Boreal Chickadee	S	POSS	1	William S. Climie				
37	16EU49	Red-breasted Nuthatch	S	POSS	1	William S. Climie	5	15.15	0.1515	1
37	16EU49	Brown Creeper	S	POSS	1	William S. Climie				
37	16EU49	Winter Wren	S	POSS	1	2 atlassers	5	15.15	0.1515	1
37	16EU49	Golden-crowned Kinglet	S	POSS	1	William S. Climie	5	15.15	0.1515	1
37	16EU49	Ruby-crowned Kinglet	S	POSS	1	William S. Climie	3	9.09	0.0909	1

37	16EU49	Swainson's Thrush	S	POSS	1	William S. Climie	13	39.39	0.4545	1
37	16EU49	Hermit Thrush	S	POSS	1	Stew Hamill	3	9.09	0.0909	1
37	16EU49	American Robin	P	PROB	1	William S. Climie	10	30.3	0.303	1
37	16EU49	Gray Catbird	S	POSS	1	William S. Climie				
37	16EU49	Northern Mockingbird	S	POSS	1	William S. Climie				
37	16EU49	European Starling	NY	CONF	1	William S. Climie	2	6.06	0.1818	1
37	16EU49	Cedar Waxwing	S	POSS	1	William S. Climie	3	9.09	0.0909	1
37	16EU49	Tennessee Warbler	S	POSS	1	2 atlassers				
37	16EU49	Nashville Warbler	S	POSS	1	2 atlassers	7	21.21	0.3333	1
37	16EU49	Northern Parula	S	POSS	1	William S. Climie	1	3.03	0.0303	1
37	16EU49	Yellow Warbler	NB	CONF	1	Glenn Coady	2	6.06	0.1818	1
37	16EU49	Chestnut-sided Warbler	S	POSS	1	William S. Climie	7	21.21	0.2424	1
37	16EU49	Magnolia Warbler	S	POSS	1	2 atlassers	7	21.21	0.2424	1
37	16EU49	Cape May Warbler	S	POSS	1	Glenn Coady				
37	16EU49	Yellow-rumped Warbler	P	PROB	1	William S. Climie	16	48.48	0.5152	1
37	16EU49	Black-throated Green Warbler	T	PROB	1	William S. Climie	17	51.52	0.6667	1
37	16EU49	Black-and-white Warbler	S	POSS	1	William S. Climie	2	6.06	0.1515	1
37	16EU49	American Redstart	T	PROB	1	William S. Climie	18	54.55	0.7576	1
37	16EU49	Ovenbird	T	PROB	1	William S. Climie	7	21.21	0.3939	1
37	16EU49	Northern Waterthrush	S	POSS	1	William S. Climie	2	6.06	0.0606	1
37	16EU49	Mourning Warbler	S	POSS	1	William S. Climie	1	3.03	0.0303	1
37	16EU49	Common Yellowthroat	T	PROB	1	William S. Climie	2	6.06	0.0606	1
37	16EU49	Canada Warbler	S	POSS	1	William S. Climie	1	3.03	0.0303	1
37	16EU49	Chipping Sparrow	NB	CONF	1	William S. Climie	11	33.33	0.4242	1
37	16EU49	Savannah Sparrow	CF	CONF	1	William S. Climie	3	9.09	0.0909	1
37	16EU49	Song Sparrow	T	PROB	1	William S. Climie	8	24.24	0.4242	1

37	16EU49	Lincoln's Sparrow	S	POSS	1	William S. Climie	2	6.06	0.1212	1
37	16EU49	Swamp Sparrow	T	PROB	1	William S. Climie				
37	16EU49	White-throated Sparrow	S	POSS	1	2 atlassers	26	78.79	1.1515	1
37	16EU49	Dark-eyed Junco	CF	CONF	1	Stew Hamill				
37	16EU49	Northern Cardinal	T	PROB	1	William S. Climie				
37	16EU49	Red-winged Blackbird	V	PROB	1	Glenn Coady				
37	16EU49	Rusty Blackbird	H	POSS	1	Glenn Coady				
37	16EU49	Common Grackle	H	POSS	1	2 atlassers				
37	16EU49	Brown-headed Cowbird	T	PROB	1	William S. Climie	3	9.09	0.2121	1
37	16EU49	Purple Finch	P	PROB	1	Glenn Coady				
37	16EU49	White-winged Crossbill	S	POSS	1	William S. Climie	3	9.09	0.0909	1
37	16EU49	Pine Siskin	S	POSS	1	William S. Climie				
37	16EU49	American Goldfinch	T	PROB	1	William S. Climie	11	33.33	0.5455	1
37	16EU49	Evening Grosbeak	S	POSS	1	William S. Climie	2	6.06	0.0909	1

LEGEND

Breeding Evidence

Max BE: Highest Breeding Evidence recorded
Categ: Highest Breeding Category recorded (OBS=observed, POSS=possible, PROB=probable, CONF=confirmed)
#Sq: Number of squares with species (Breeding Evidence)
Atlasser name: Name of atlasser who reported the highest breeding evidence (if they accepted that their name be displayed). If more than one person provided the same breeding evidence code, then only the number of atlassers is listed.

Point Counts

#PC: Number of Point Counts with species
%PC: Percent of Point Counts with species
Abun: Average number of birds per Point Count
#Sq: Number of squares with species (Point Counts)

37	16EU49	Belted Kingfisher	T	PROB	1	William S. Climie				
37	16EU49	Yellow-bellied Sapsucker	H	POSS	1	William S. Climie	3	9.09	0.1212	1
37	16EU49	Downy Woodpecker	CF	CONF	1	William S. Climie				
37	16EU49	Hairy Woodpecker	H	POSS	1	2 atlassers				
37	16EU49	Northern Flicker	AE	CONF	1	Glenn Coady	3	9.09	0.0909	1
37	16EU49	Pileated Woodpecker	NY	CONF	1	William S. Climie	1	3.03	0.0303	1
37	16EU49	Yellow-bellied Flycatcher	S	POSS	1	Glenn Coady				
37	16EU49	Alder Flycatcher	T	PROB	1	William S. Climie	3	9.09	0.1212	1
37	16EU49	Least Flycatcher	S	POSS	1	William S. Climie	2	6.06	0.0606	1
37	16EU49	Blue-headed Vireo	S	POSS	1	William S. Climie	1	3.03	0.0303	1
37	16EU49	Philadelphia Vireo	S	POSS	1	William S. Climie	1	3.03	0.0303	1
37	16EU49	Red-eyed Vireo	S	POSS	1	2 atlassers	6	18.18	0.1818	1
37	16EU49	Gray Jay	FY	CONF	1	William S. Climie				
37	16EU49	Blue Jay	T	PROB	1	William S. Climie				
37	16EU49	American Crow	FY	CONF	1	William S. Climie	21	63.64	0.9091	1
37	16EU49	Common Raven	T	PROB	1	William S. Climie	13	39.39	0.5758	1
37	16EU49	Tree Swallow	V	PROB	1	William S. Climie	3	9.09	0.2424	1
37	16EU49	Cliff Swallow	H	POSS	1	William S. Climie				
37	16EU49	Black-capped Chickadee	P	PROB	1	William S. Climie	1	3.03	0.0303	1
37	16EU49	Boreal Chickadee	S	POSS	1	William S. Climie				
37	16EU49	Red-breasted Nuthatch	S	POSS	1	William S. Climie	5	15.15	0.1515	1
37	16EU49	Brown Creeper	S	POSS	1	William S. Climie				
37	16EU49	Winter Wren	S	POSS	1	2 atlassers	5	15.15	0.1515	1
37	16EU49	Golden-crowned Kinglet	S	POSS	1	William S. Climie	5	15.15	0.1515	1
37	16EU49	Ruby-crowned Kinglet	S	POSS	1	William S. Climie	3	9.09	0.0909	1

37	16EU49	Swainson's Thrush	S	POSS	1	William S. Climie	13	39.39	0.4545	1
37	16EU49	Hermit Thrush	S	POSS	1	Stew Hamill	3	9.09	0.0909	1
37	16EU49	American Robin	P	PROB	1	William S. Climie	10	30.3	0.303	1
37	16EU49	Gray Catbird	S	POSS	1	William S. Climie				
37	16EU49	Northern Mockingbird	S	POSS	1	William S. Climie				
37	16EU49	European Starling	NY	CONF	1	William S. Climie	2	6.06	0.1818	1
37	16EU49	Cedar Waxwing	S	POSS	1	William S. Climie	3	9.09	0.0909	1
37	16EU49	Tennessee Warbler	S	POSS	1	2 atlassers				
37	16EU49	Nashville Warbler	S	POSS	1	2 atlassers	7	21.21	0.3333	1
37	16EU49	Northern Parula	S	POSS	1	William S. Climie	1	3.03	0.0303	1
37	16EU49	Yellow Warbler	NB	CONF	1	Glenn Coady	2	6.06	0.1818	1
37	16EU49	Chestnut-sided Warbler	S	POSS	1	William S. Climie	7	21.21	0.2424	1
37	16EU49	Magnolia Warbler	S	POSS	1	2 atlassers	7	21.21	0.2424	1
37	16EU49	Cape May Warbler	S	POSS	1	Glenn Coady				
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37	16EU49	Savannah Sparrow	CF	CONF	1	William S. Climie	3	9.09	0.0909	1
37	16EU49	Song Sparrow	T	PROB	1	William S. Climie	8	24.24	0.4242	1

37	16EU49	Lincoln's Sparrow	S	POSS	1	William S. Climie	2	6.06	0.1212	1
37	16EU49	Swamp Sparrow	T	PROB	1	William S. Climie				
37	16EU49	White-throated Sparrow	S	POSS	1	2 atlassers	26	78.79	1.1515	1
37	16EU49	Dark-eyed Junco	CF	CONF	1	Stew Hamill				
37	16EU49	Northern Cardinal	T	PROB	1	William S. Climie				
37	16EU49	Red-winged Blackbird	V	PROB	1	Glenn Coady				
37	16EU49	Rusty Blackbird	H	POSS	1	Glenn Coady				
37	16EU49	Common Grackle	H	POSS	1	2 atlassers				
37	16EU49	Brown-headed Cowbird	T	PROB	1	William S. Climie	3	9.09	0.2121	1
37	16EU49	Purple Finch	P	PROB	1	Glenn Coady				
37	16EU49	White-winged Crossbill	S	POSS	1	William S. Climie	3	9.09	0.0909	1
37	16EU49	Pine Siskin	S	POSS	1	William S. Climie				
37	16EU49	American Goldfinch	T	PROB	1	William S. Climie	11	33.33	0.5455	1
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LEGEND

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APPENDIX C:

STATEMENT OF COMPLETION

Ontario

Ministry of the Environment and Climate Change

Statement of Completion Electricity Projects

For Office Use Only		
Reference Number	Date (yyyy/mm/dd)	Initials

General Information and Instructions

General

The information provided on this form is collected under authority of the Ministry of the Environment and Climate Change Environmental Screening Process for electricity projects.

Instructions

1. Questions regarding the completion and submission of this form should be directed to Customer Services and Outreach Unit at the Client Services and Permissions Branch (416-314-8001 or 1-800-461-6290).
2. Please send the completed form to:

   Ministry of the Environment and Climate Change
   Director, Environmental Assessment and Permissions Branch
   135 St. Clair Avenue West, 1st Floor
   Toronto ON M4V 1P5
   Fax: 416-314-8452

Proponent Information

Proponent Name (legal name of organization)
Hydro One Networks Inc.

Contact Person

Last Name	First Name	Middle Initial
Ong	Yu San	

Telephone Number	Fax Number	Email Address
416 345-5031 ext.		yusan.ong@hydroone.com

Proponent Type

☐ Municipal ☐ Provincial ☐ Crown Corporation ☐ Federal ☐ Private Sector

☑ Other (describe) ▶

Proponent Mailing Address

Civic Address

Unit Number	Street Number	Street Name	PO Box
Flr 12	483	Bay Street	

Delivery Designator

☐ Rural Route ☐ Suburban Service ☐ Mobile Route ☐ General Delivery ☑ N/A

Delivery Identifier

Municipality/Unorganized Township	Province	Country	Postal Code
Toronto	ON	Canada	M5G 2P5

Site Address

☑ **Civic Address**

Unit Number	Street Number	Street Name	PO Box
	217	Peninsula Road	

Municipality/Unorganized Township	Province	Country	Postal Code
Marathon	ON	Canada	

☐ **Survey Address**

Geo Reference (Non Address Information)

Description	Map Datum	Zone	Accuracy Estimate	Geo-Referencing Method	UTM Easting	UTM Northing
Southwest corner of property						
Physical location of front door						

Project Information

Project Name

Marathon Transformer Station Expansion Project

Nameplate Capacity of Facility (in megawatts)

230 kV Transformer Station

Power Source or Fuel Type

☐ Wind ☐ Water (hydroelectric) ☐ Natural gas ☐ Biomass ☐ Landfill gas ☐ Waste biomass ☐ Oil ☐ Coal

☐ Municipal solid waste ☐ Hazardous waste ☐ Liquid industrial waste

☑ Other (describe) ▶ Electricity from existing provincial grid

Brief Project Description

This project consists of the expansion of the existing Marathon Transformer Station (TS) of approximately five hectares on adjacent Crown Land, which is required to accommodate the proposed new East-West Tie transmission line. The project involves the installation of a new relay building and new electrical equipment, as well as the reconfiguration of existing electrical components. Please see the attached map.

Was a Screening Report prepared?

☐ Yes ☑ No

Was an Environmental Review Report prepared?

☐ Yes ☑ No

Was an Equivalent Review Report prepared?

☑ Yes ☐ No

Availability of Documentation

☐ Same as Site Address

Proponents are required to retain, either on site or in another location where they will be readily available, any Screening Report, Environmental Review Report, Equivalent Review Report, Addendum, and related notices and Statements of Completion prepared under the Environmental Screening Process, as well as documentation of any commitments made by the proponent to address concerns after one of the above-noted reports was prepared.

☑ **Civic Address**

Unit Number	Street Number	Street Name	PO Box
Flr 12	483	Bay Street	

Municipality/Unorganized Township	Province	Country	Postal Code
Toronto	ON	Canada	M5P 2G5

☐ **Survey Address**

Geo Reference (Non Address Information)

Description	Map Datum	Zone	Accuracy Estimate	Geo-Referencing Method	UTM Easting	UTM Northing
Southwest corner of property						
Physical location of front door						

Contact Information about project documentation

Contact Person

Last Name	First Name	Middle Initial
Ong	Yu San	

Telephone Number	Email Address	Website containing project documentation
416 345-5031 ext.		www.hydroone.com/projects/marathonts

Elevation Requests

Were any Elevation Requests Received?

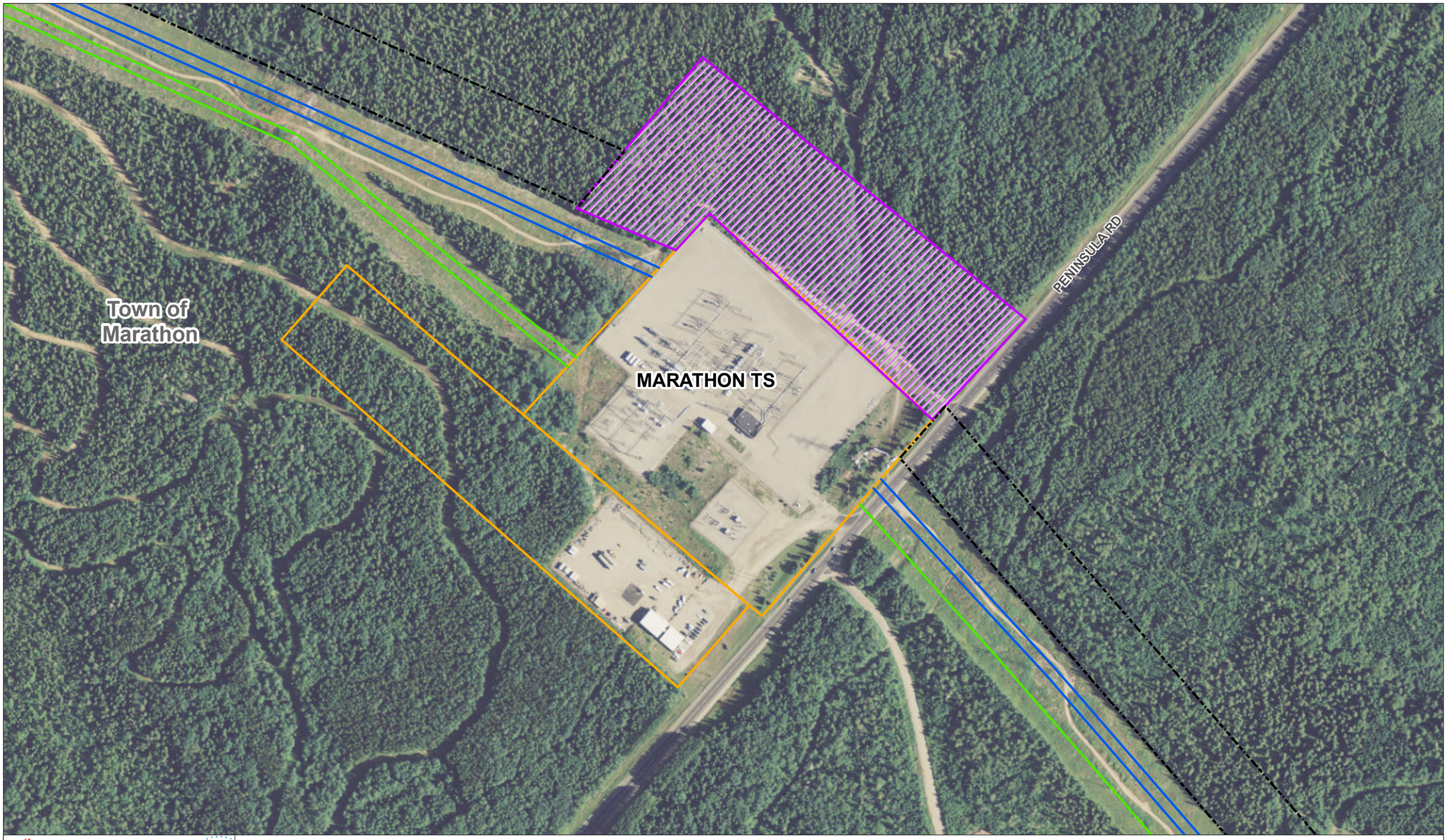
☐ Yes ☑ No

If Yes, how were they resolved?

Statement of Proponent

I, the undersigned hereby declare that, to the best of my knowledge, the information contained in this statement is complete and accurate in every way, and I have complied with the Environmental Screening Process established under *the Environmental Assessment Act* of Ontario in the environmental review of the above-noted project.

Name	Title
Yu San Ong	Environmental Planner
Signature	Date (yyyy/mm/dd)
	2018/11/12



hydro one

inergi

Produced By: Inergi LP, GIS Services
Date: Dec 11, 2017
Map 17-04_East-West_Tie_Connections_Project_MarathonTS_Expansion_GA_ortho

Transmission Line

115 kV

230 kV

Proposed Station Expansion Area

Existing Hydro One Property Boundary

Proposed New East-West Tie Transmission Corridor

Proposed Marathon TS Expansion

1:3,000

0 50 100 m