MARATHON TRANSFORMER STATION EXPANSION

CLASS ENVIRONMENTAL ASSESSMENT

DRAFT ENVIRONMENTAL STUDY REPORT

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hydro one

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CONSULTATION

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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	-

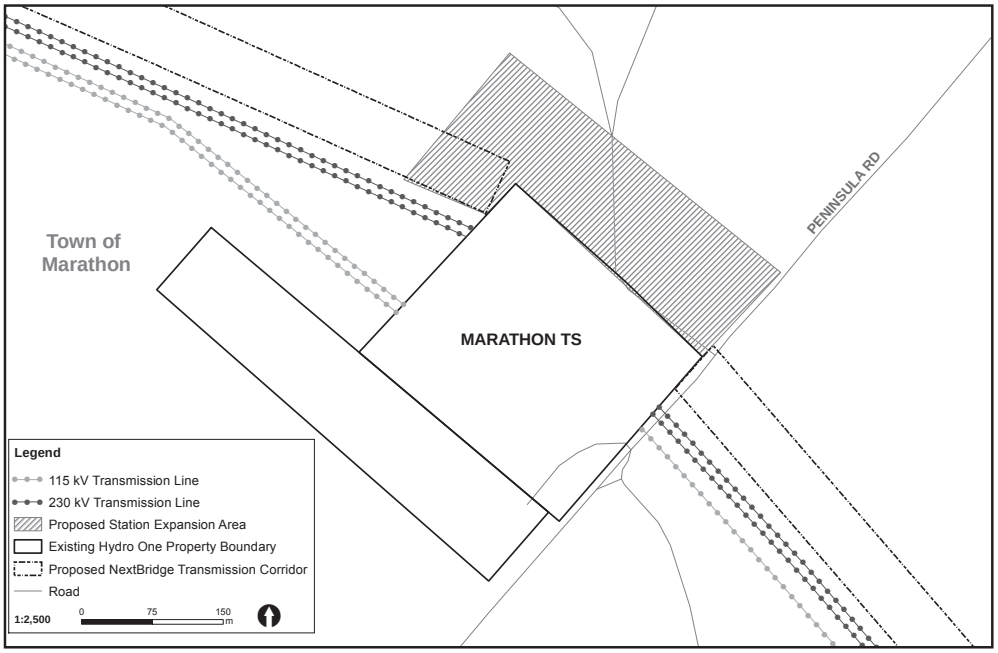
APPENDIX A-2:

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

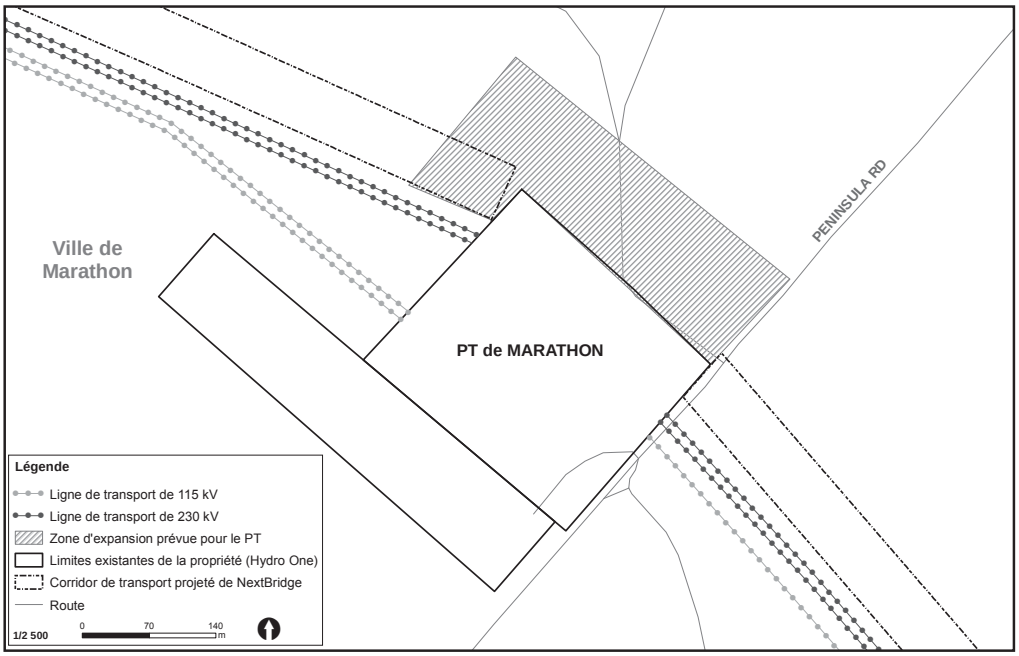
If you would like more information, or wish to receive our project updates by email, please contact:

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

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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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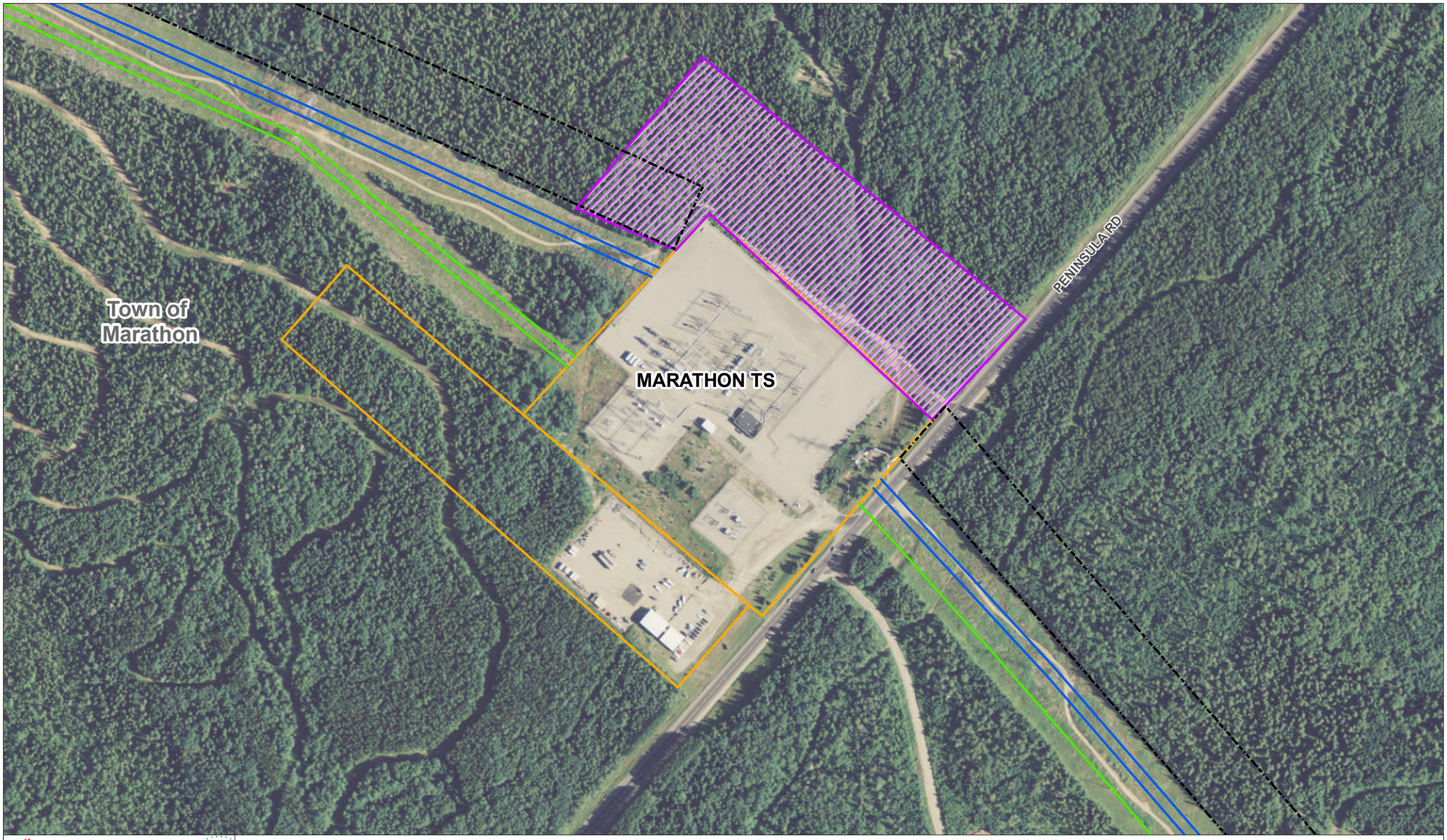
Freedom of Information and Protection of Privacy Act

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.



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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]

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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.

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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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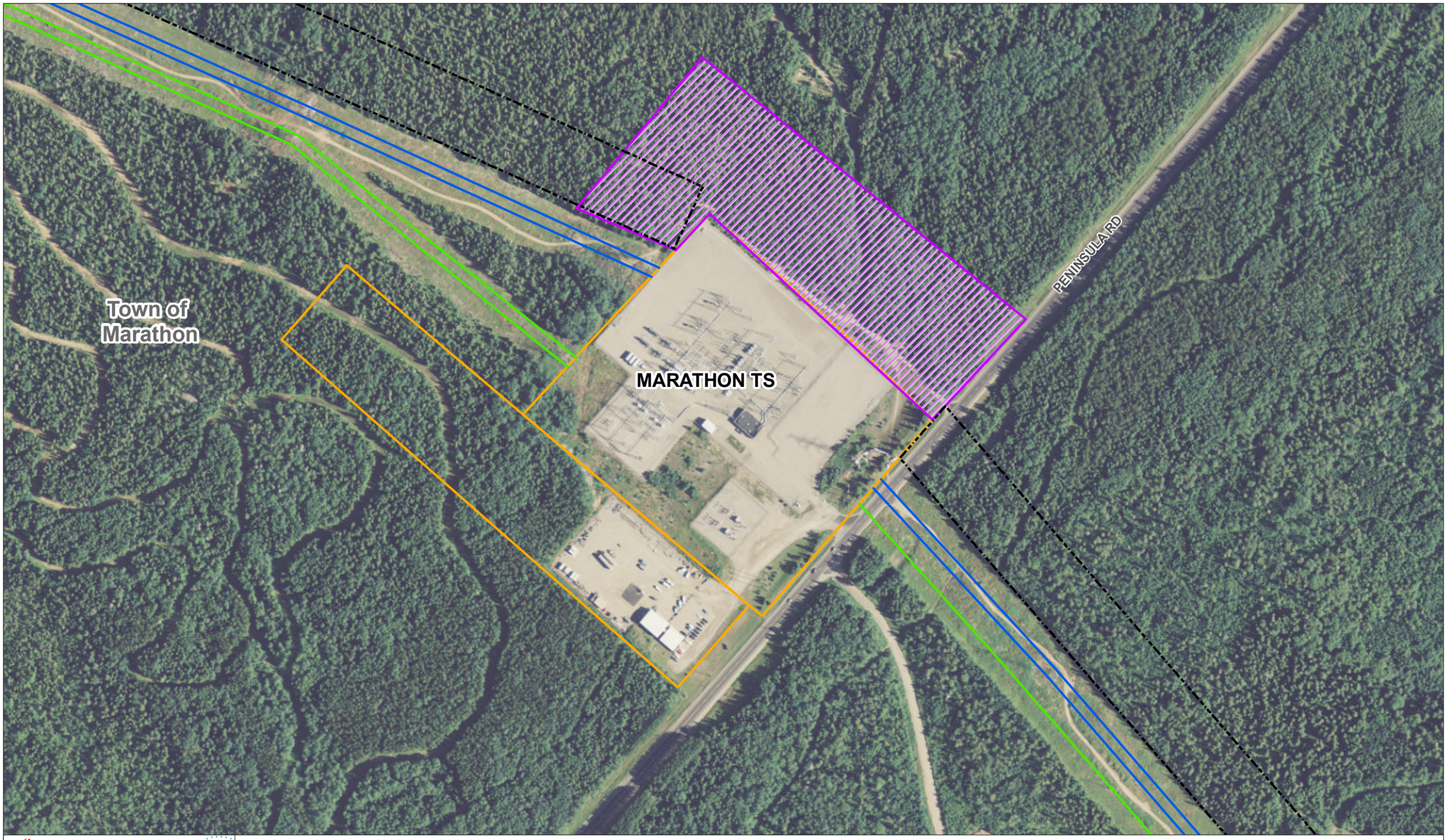

hydro one

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.

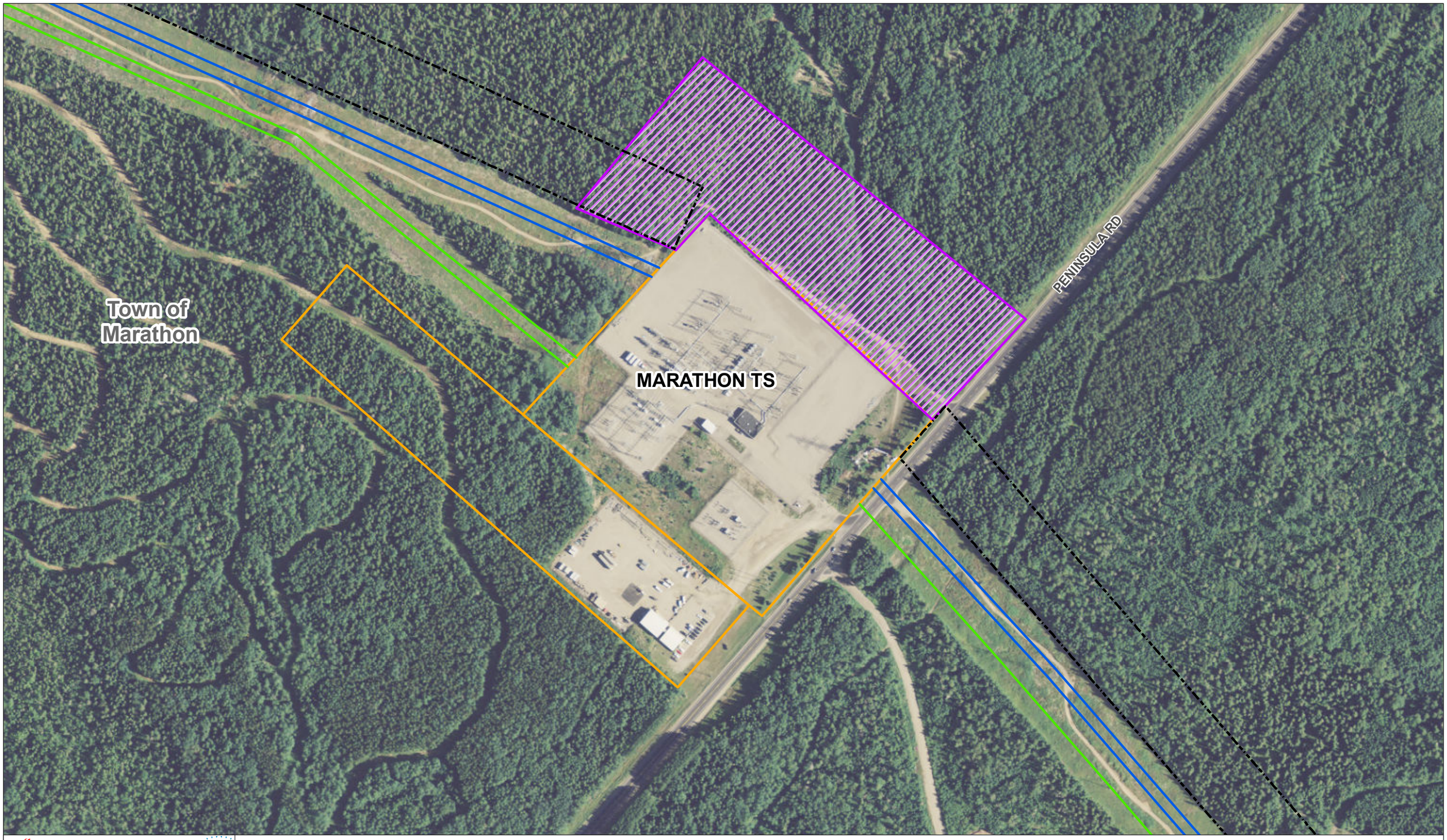
If you have any questions regarding this project, please feel free to contact me at (416) 345 6597, or April Fang, Environmental Planner at (416) 345-1260, or AprilBihui.Fang@HydroOne.com.

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.

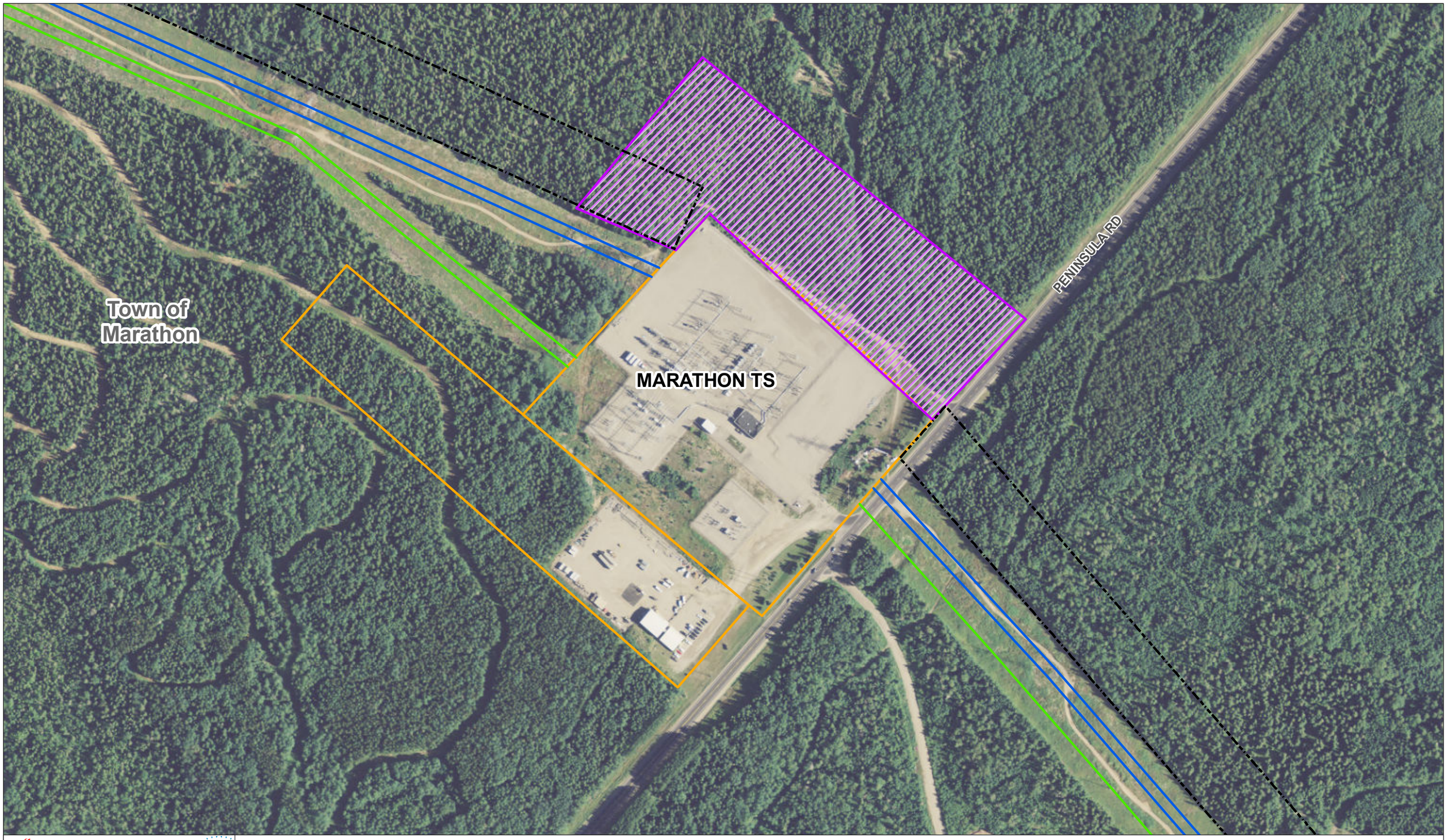
If you have any questions regarding this project, please feel free to contact me at (416) 345 6597, or April Fang, Environmental Planner at (416) 345-1260, or AprilBihui.Fang@HydroOne.com.

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.

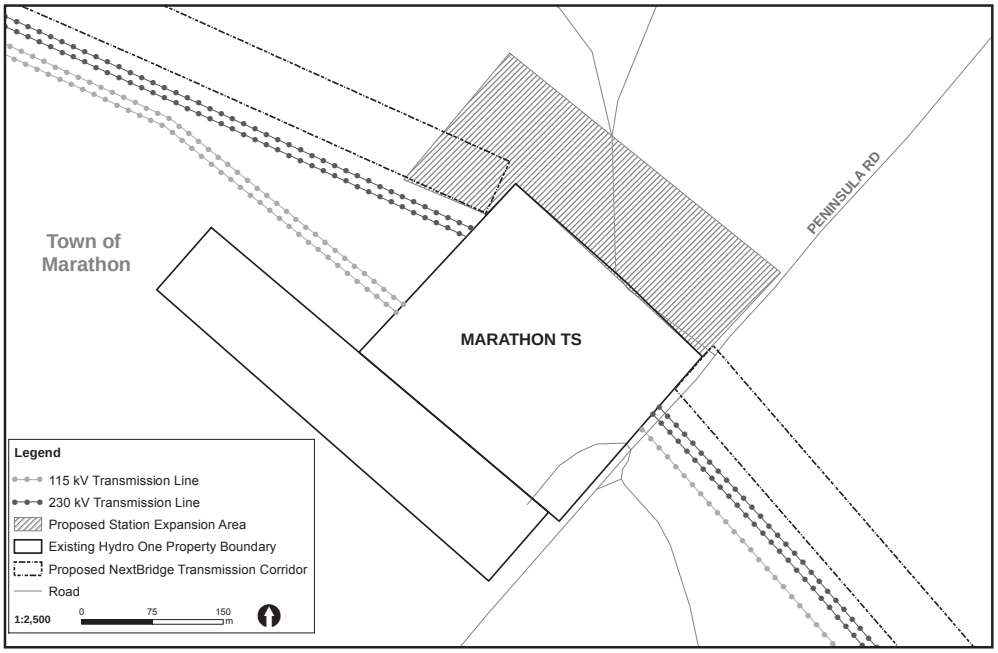
Yours truly,

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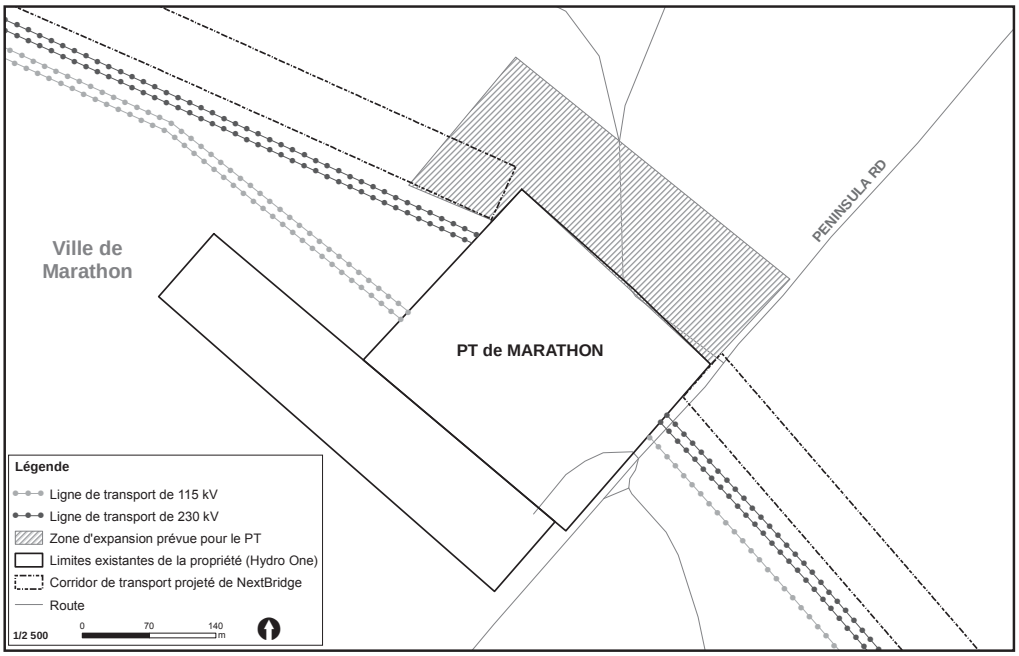
AVIS DE LANCEMENT
Évaluation environnementale de portée générale
Projet d'expansion du poste de transformation de Marathon

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

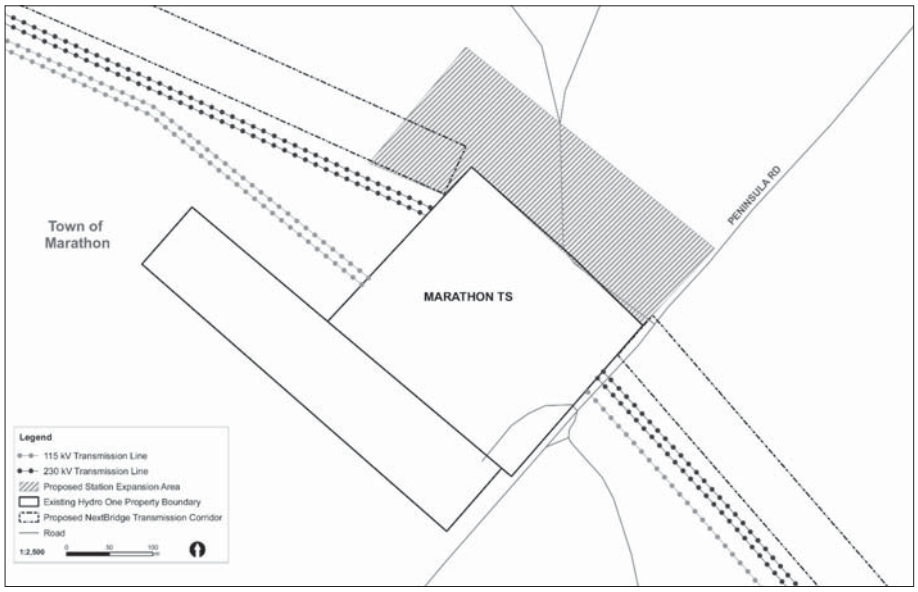
PUBLIC INFORMATION CENTRE

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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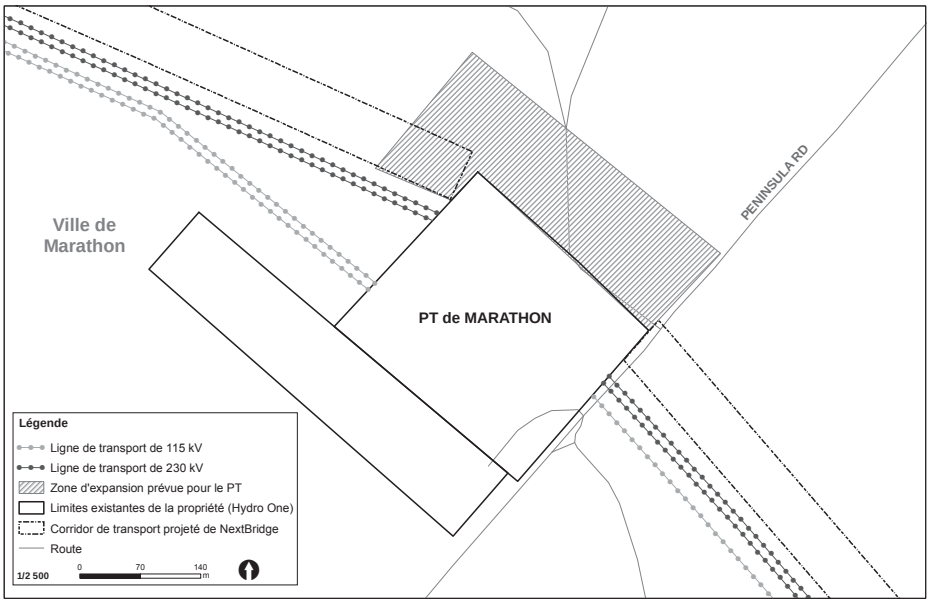
Partners in Powerful Communities

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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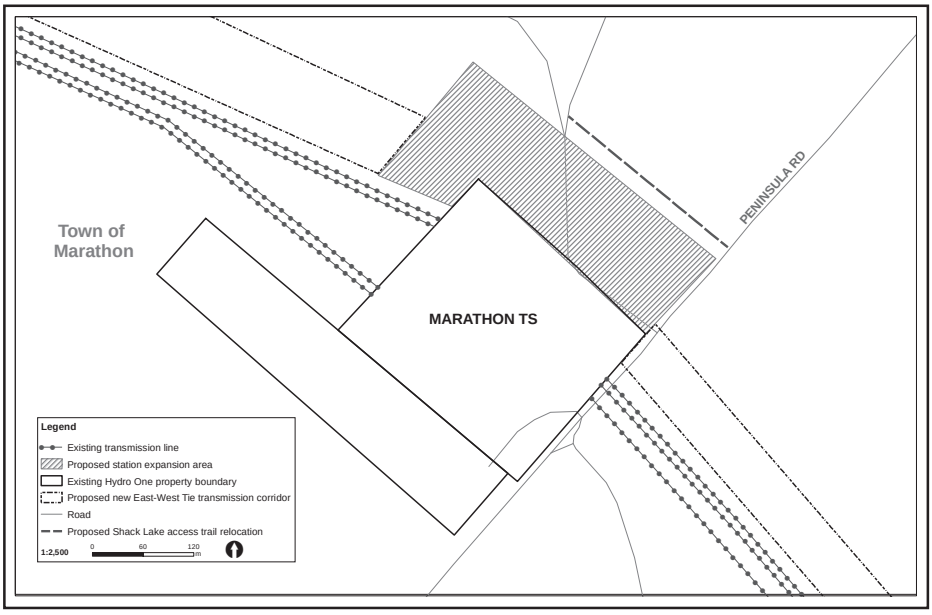
FINAL NOTIFICATION AND DRAFT ESR REVIEW PERIOD

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.

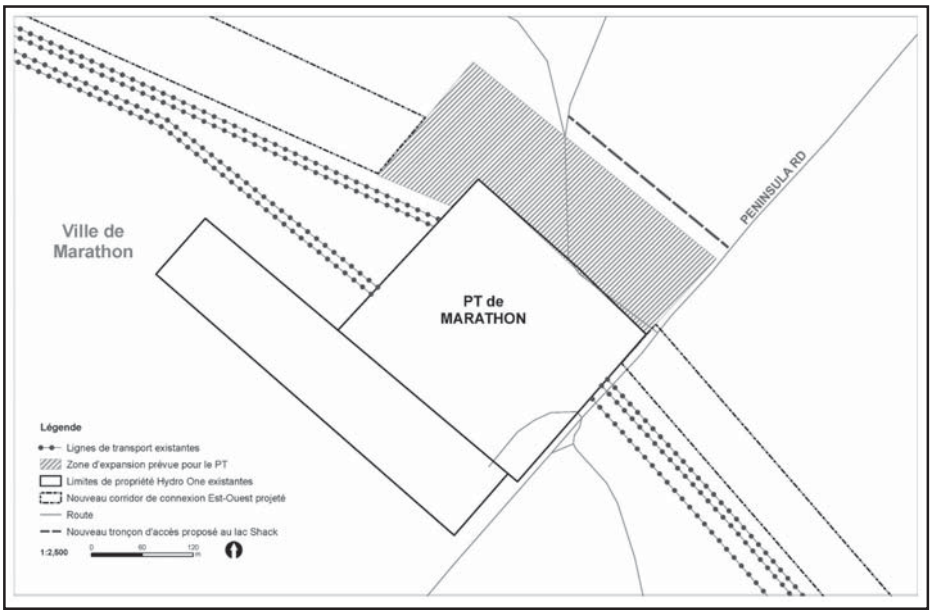
For more information please call 1-877-345-6799 or visit www.HydroOne.com/Projects/MarathonTS.

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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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.

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: 416-345-5031
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

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Sincerely,

Yu San Ong, Environmental Planner
Environmental Services

Attachment (1): Newspaper Advertisements – French and English

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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

To [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:
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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

---

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.

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: [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

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 (Ojibways of Pic River First Nation)	April Fang (Hydro One Networks)	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 (Ojibways of Pic River First Nation)	April Fang (Hydro One Networks)	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 (Ojibways of Pic River First Nation)	April Fang (Hydro One Networks), Yu San Ong (Hydro One Networks)	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 (Ojibways of Pic River First Nation)	Yu San Ong (Hydro One Networks)	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 (Pays Plat First Nation)	April Fang (Hydro One Networks)	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 (Pays Plat First Nation)	April Fang (Hydro One Networks)	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 (Pays Plat First Nation)	April Fang (Hydro One Networks), Yu San Ong (Hydro One Networks)	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 David P. Mushquash (Pays Plat First Nation)	Yu San Ong (Hydro One Networks)	HONI sent the Final Notification letter via e-mail and registered mail. The same day, HONI re-sent the letter to the new Chief (Chief David P. Mushquash).
Pic Mobert First Nation				
03/15/2017 – E-mail 03/16/2017 – Registered Mail	E-mail & Registered Mail	Chief Wayne Sabourin (Pic Mobert First Nation)	April Fang (Hydro One Networks)	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.

Date	Method	Stakeholder Contact(s)	Project Team Member(s)	Communication Summary
03/23/2017	Phone call	Chief Wayne Sabourin (Pic Mobert First Nation)	April Fang (Hydro One Networks)	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 (Pic Mobert First Nation)	April Fang (Hydro One Networks), Yu San Ong (Hydro One Networks)	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 Johanna Desmoulin (Pic Mobert First Nation)	Yu San Ong (Hydro One Networks)	HONI sent the Final Notification letter via e-mail and registered mail. The same day, HONI re-sent the 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 (Métis Nation of Ontario)	April Fang (Hydro One Networks), Tausha Esquega (Hydro One Networks)	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 (Métis Nation of Ontario)	April Fang (Hydro One Networks)	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 (Métis Nation of Ontario)	Tausha Esquega (Hydro One Networks)	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 (Métis Nation of Ontario), Bonnie Bartlett (Métis Nation of Ontario)	April Fang (Hydro One Networks), Yu San Ong (Hydro One Networks)	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 (Métis Nation of Ontario), Bonnie Bartlett (Métis Nation of Ontario)	Yu San Ong (Hydro One Networks)	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 (Métis Nation of Ontario)	April Fang (Hydro One Networks)	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.
03/23/2017	Phone call	William Gordon (Métis Nation of Ontario)	April Fang (Hydro One Networks)	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 (Métis Nation of Ontario)	April Fang (Hydro One Networks), Yu San Ong (Hydro One Networks)	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
03/05/2018	E-mail & Registered Mail	William Gordon (Métis Nation of Ontario)	Yu San Ong (Hydro One Networks)	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 (Métis Nation of Ontario)	April Fang (Hydro One Networks)	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 (Métis Nation of Ontario)	April Fang (Hydro One Networks)	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 (Métis Nation of Ontario)	April Fang (Hydro One Networks), Yu San Ong (Hydro One Networks)	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 (Métis Nation of Ontario)	Yu San Ong (Hydro One Networks)	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 (Métis Nation of Ontario)	April Fang (Hydro One Networks)	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 (Métis Nation of Ontario)	April Fang (Hydro One Networks)	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 (Métis Nation of Ontario)	April Fang (Hydro One Networks), Yu San Ong (Hydro One Networks)	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 (Métis Nation of Ontario)	Yu San Ong (Hydro One Networks)	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 (Animbiigoo Zaagi'igan Anishinaabek)	April Fang (Hydro One Networks)	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 (Animbiigoo Zaagi'igan Anishinaabek)	April Fang (Hydro One Networks)	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 (Animbiigoo Zaagi'igan Anishinaabek)	April Fang (Hydro One Networks)	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 (Animbiigoo Zaagi'igan Anishinaabek)	April Fang (Hydro One Networks), Yu San Ong (Hydro One Networks)	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 (Animbiigoo Zaagi'igan Anishinaabek)	Yu San Ong (Hydro One Networks)	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 (Bingwi Neyaashi Anishinaabek)	April Fang (Hydro One Networks)	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 (Bingwi Neyaashi Anishinaabek)	April Fang (Hydro One Networks)	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 (Bingwi Neyaashi Anishinaabek)	April Fang (Hydro One Networks), Yu San Ong (Hydro One Networks)	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 (Bingwi Neyaashi Anishinaabek)	Yu San Ong (Hydro One Networks)	HONI sent the Final Notification letter via e-mail and registered mail.
Biinjitiwaabik Zaaging Anishinaabek				
03/15/2017 – E-mail	E-mail & Registered	Chief Melvin Hardy (Biinjitiwaabik Zaaging Anishinaabek)	April Fang (Hydro One Networks)	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
03/16/2017 – Registered Mail	Mail			
03/23/2017	Phone call	Chief Melvin Hardy (Biinjitiwaabik Zaaging Anishinaabek)	April Fang (Hydro One Networks)	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 (Biinjitiwaabik Zaaging Anishinaabek)	April Fang (Hydro One Networks), Yu San Ong (Hydro One Networks)	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 (Biinjitiwaabik Zaaging Anishinaabek)	Yu San Ong (Hydro One Networks)	HONI sent the Final Notification letter via e-mail and registered mail.
Fort William First Nation				
03/15/2017 – E-mail 03/16/2017 Registered Mail	E-mail & Registered Mail	Chief Peter Collins (Fort William First Nation)	April Fang (Hydro One Networks)	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 (Fort William First Nation)	April Fang (Hydro One Networks)	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 (Fort William First Nation)	April Fang (Hydro One Networks), Yu San Ong (Hydro One Networks)	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 (Fort William First Nation)	Yu San Ong (Hydro One Networks)	HONI sent the Final Notification letter via e-mail and registered mail.
Ginoogaming First Nation				
03/15/2017 – E-mail 03/16/2017 – Registered Mail	E-mail & Registered Mail	Chief Celia Echum (Ginoogaming First Nation)	April Fang (Hydro One Networks)	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 (Ginoogaming First Nation)	April Fang (Hydro One Networks)	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 Mail	E-mail & Registered Mail	Chief Celia Echum (Ginoogaming First Nation)	April Fang (Hydro One Networks), Yu San Ong (Hydro One Networks)	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
03/05/2018	E-mail & Registered Mail	Chief Celia Echum (Ginoogaming First Nation)	Yu San Ong (Hydro One Networks)	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 (Long Lake No.58 First Nation)	April Fang (Hydro One Networks)	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 (Long Lake No.58 First Nation)	April Fang (Hydro One Networks)	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 (Long Lake No.58 First Nation)	April Fang (Hydro One Networks), Yu San Ong (Hydro One Networks)	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 (Long Lake No.58 First Nation)	Yu San Ong (Hydro One Networks)	HONI sent the Final Notification letter via e-mail and registered mail.
Michipicoten First Nation (MFN)				
03/15/2017 – E-mail 03/16/2017 – Registered Mail	E-mail & Registered Mail	Chief Joe Buckell (Michipicoten First Nation)	April Fang (Hydro One Networks)	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 (Michipicoten First Nation)	April Fang (Hydro One Networks)	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 (Michipicoten First Nation), Irene Armstrong (Michipicoten First Nation)	April Fang (Hydro One Networks)	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 (Michipicoten First Nation)	April Fang (Hydro One Networks)	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 (Hydro One Networks), Yu San Ong (Hydro One), Tausha Esquega (Hydro One) (via call-in)	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 (Michipicoten First Nation)	April Fang (Hydro One Networks)	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.

Date	Method	Stakeholder Contact(s)	Project Team Member(s)	Communication Summary
07/11/2017 – Email 07/12/2017 – Registered Mail	E-mail & Registered Mail	Chief Patricia Tangie (Michipicoten First Nation)	April Fang (Hydro One Networks), Yu San Ong (Hydro One Networks)	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 Patricia Tangie (Michipicoten First Nation)	Yu San Ong (Hydro One Networks)	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 (Missanabie Cree First Nation)	April Fang (Hydro One Networks)	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 Networks)	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 (Missanabie Cree First Nation)	April Fang (Hydro One Networks), Yu San Ong (Hydro One Networks)	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 (Missanabie Cree First Nation)	Yu San Ong (Hydro One Networks)	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 (Ojibways of Batchewana)	April Fang (Hydro One Networks)	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 (Ojibways of Batchewana)	April Fang (Hydro One Networks)	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 (Ojibways of Batchewana)	April Fang (Hydro One Networks), Yu San Ong (Hydro One Networks)	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 (Ojibways of Batchewana)	Yu San Ong (Hydro One Networks)	HONI sent the Final Notification letter via e-mail and registered mail.

Date	Method	Stakeholder Contact(s)	Project Team Member(s)	Communication Summary
Ojibways of Garden River				
03/15/2017 – E-mail 03/16/2017 – Registered Mail	E-mail & Registered Mail	Chief Paul Syrette (Ojibways of Garden River), Cheyenne Nolan (Ojibways of Garden River), Darlene Solomon (Ojibways of Garden River)	April Fang (Hydro One Networks)	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 (Ojibways of Garden River)	April Fang (Hydro One Networks)	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 (Ojibways of Garden River)	April Fang (Hydro One Networks)	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 (Ojibways of Garden River)	April Fang (Hydro One Networks)	HONI responded, stating that they would consider capacity funding and would offer a discussion.
04/13/2017	E-mail	Chief Paul Syrette (Ojibways of Garden River)	April Fang (Hydro One Networks)	Chief Syrette sent a Proposed Capacity Funding proposal to HONI.
05/03/2017	E-mail	Chief Paul Syrette (Ojibways of Garden River)	April Fang (Hydro One Networks)	HONI sent a letter in response to the capacity funding.
05/30/2017	Conference call	Nolan Cheyenne (Ojibways of Garden River), Richard Perrault (Ojibways of Garden River)	Yu San Ong (Hydro One Networks), Daniel Charbonneau (Hydro One Networks)	HONI held a conference call with the Environmental Planner and Manager of Indiegnous Relations at Hydro One and Nolan Cheyenne 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	Nolan Cheyenne (Ojibways of Garden River), Richard Perrault (Ojibways of Garden River)	April Fang (Hydro One Networks)	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 (Ojibways of Garden River)	April Fang (Hydro One Networks), Yu San Ong (Hydro One Networks)	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 (Ojibways of Garden River)	April Fang (Hydro One Networks)	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 (Ojibways of Garden River)	Yu San Ong (Hydro One Networks)	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 Dean Sayers (Ojibways of Batchewana)	Yu San Ong (Hydro One Networks)	HONI sent the Final Notification letter via e-mail and registered mail.

Date	Method	Stakeholder Contact(s)	Project Team Member(s)	Communication Summary
Red Rock Indian Band				
03/15/2017 – E-mail 03/16/2017 – Registered Mail	E-mail & Registered Mail	Chief Edward Wawia (Red Rock Indian Band)	April Fang (Hydro One Networks)	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 (Red Rock Indian Band)	April Fang (Hydro One Networks)	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 (Red Rock Indian Band)	April Fang (Hydro One Networks), Yu San Ong (Hydro One Networks)	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 (Red Rock Indian Band)	Yu San Ong (Hydro One Networks)	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 – Registered Mail	E-mail & Registered Mail	Dean Whellan (Red Sky Métis Independent Nation)	April Fang (Hydro One Networks)	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.
03/23/2017	Phone call/E-mail	Dean Whellan (Red Sky Métis Independent Nation)	April Fang (Hydro One Networks)	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 (Red Sky Métis Independent Nation)	April Fang (Hydro One Networks)	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 (Red Sky Métis Independent Nation)	April Fang (Hydro One Networks), Yu San Ong (Hydro One Networks)	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 (Red Rock Indian Band)	Yu San Ong (Hydro One Networks)	HONI sent the Final Notification letter via e-mail and registered mail.

Hydro One Networks Inc.
483 Bay Street
Toronto, Ontario M5G 2P5
Daniel.Charbonnuea@HydroOne.com
www.HydroOne.com

Tel. No. 416-345-4357
Fax. No. 416-345-6919

Daniel Charbonneau
A/Senior Manager, First Nation & Métis Relations
TCT6, South Tower

September 28th, 2016

Amy Gibson
Manager, First Nations and Métis Policy and Partnerships Office
Ministry of Energy
6th floor
77 Grenville St
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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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) _____

Canada

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

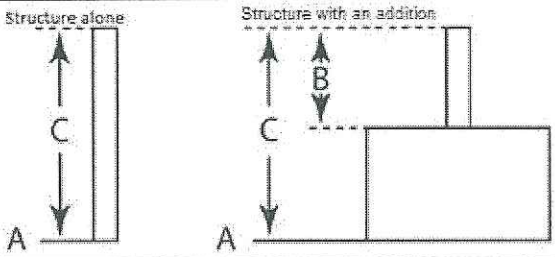
[1] Mitigation to be detailed in Section 3 [2] Justification to be given in Section 3

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.

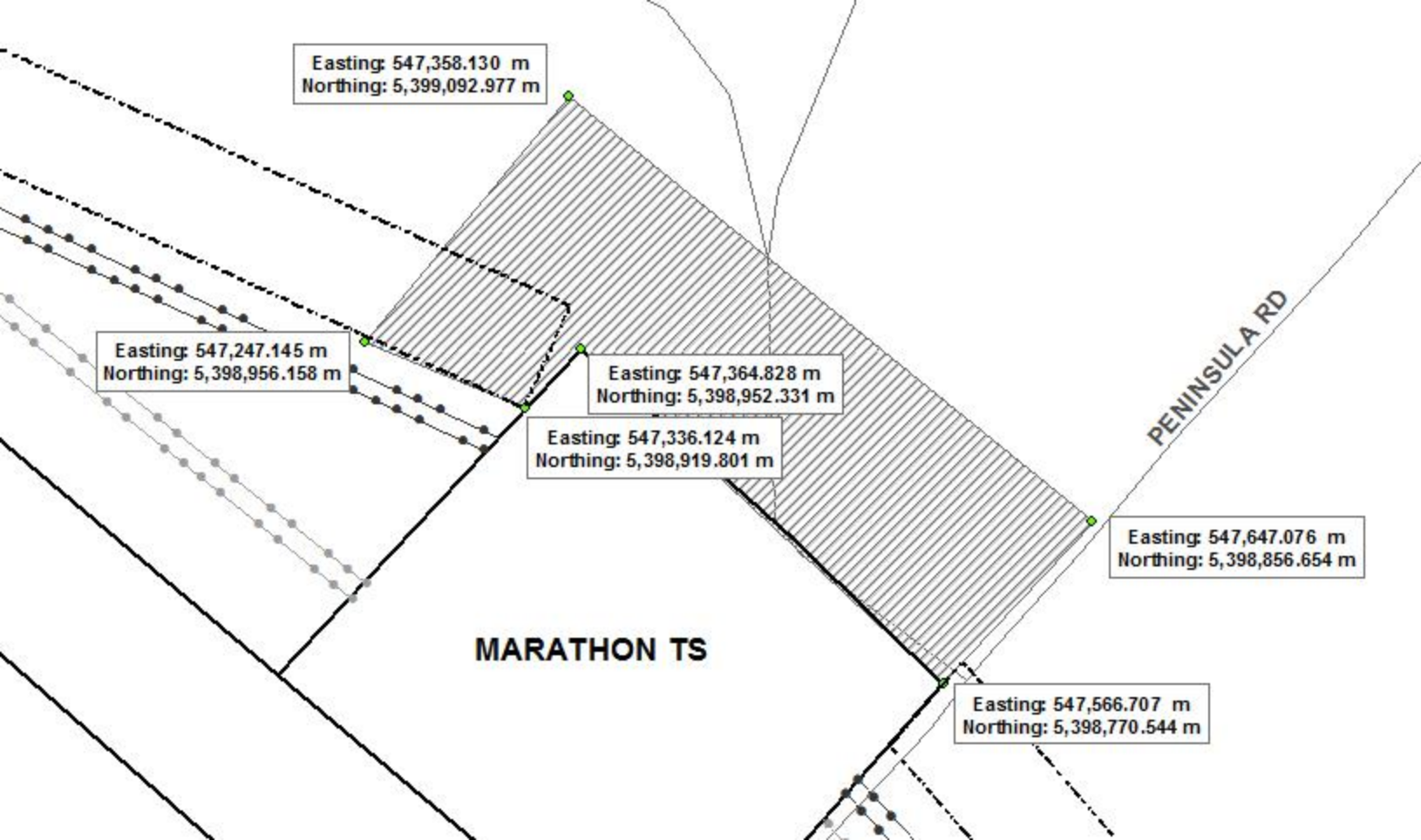
B – Enter the height of the object if it is an addition to an existing structure. The height will determine the need for lighting of this object and may affect the heights of intermediate levels of lighting on the structure.

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**.

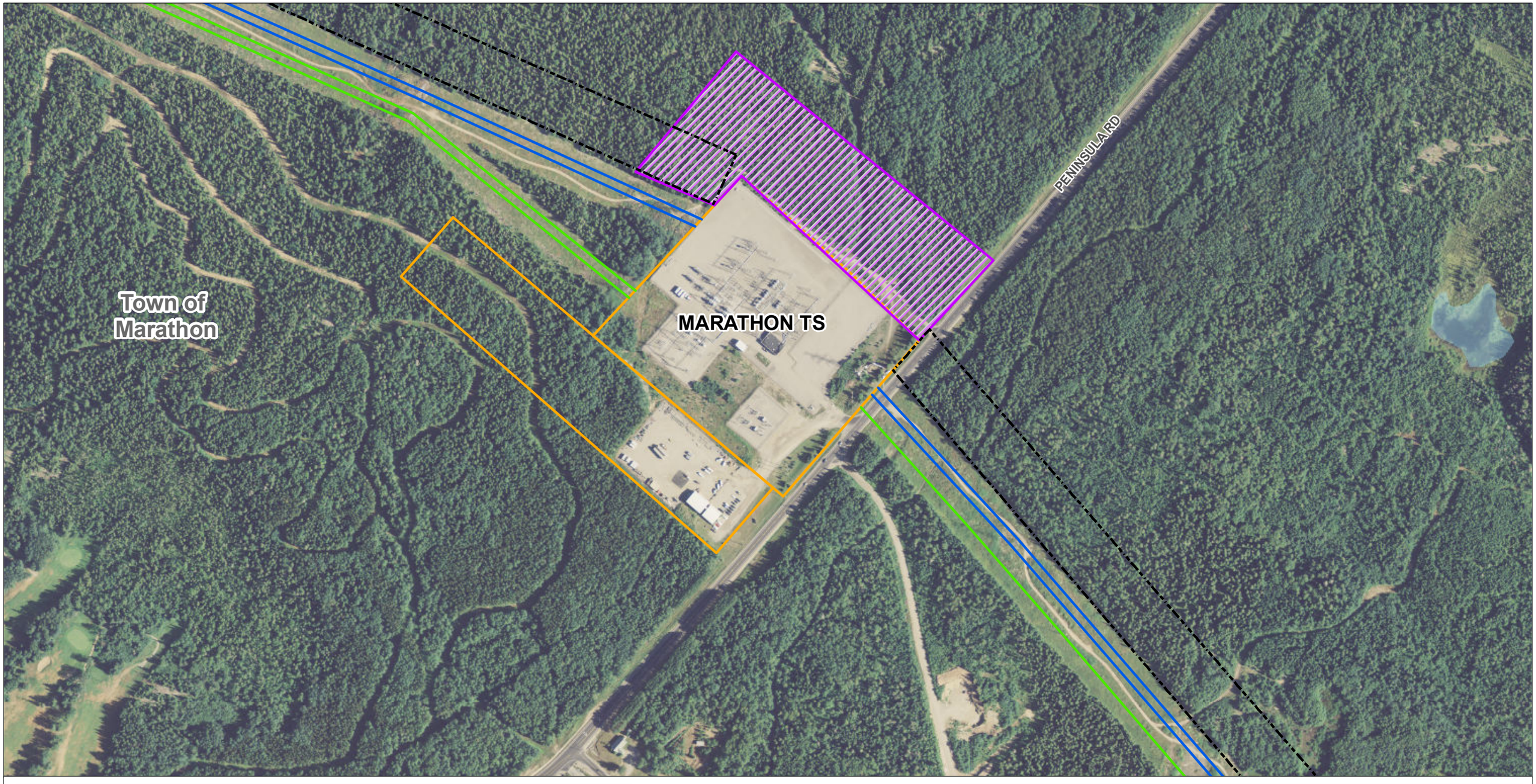
Section 16 – The survey done by a licensed surveyor attests the conformance of the object height to airport zoning surfaces for the given location.

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

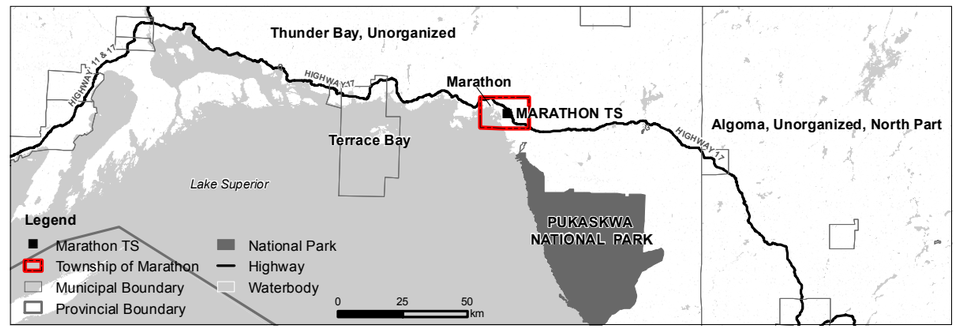
Waterbody

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 (Ministry of the Environment), Kieu Van (Ministry of the Environment)	April Fang (Hydro One Networks)	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 (Ministry of the Environment), Kieu Van (Ministry of the Environment)	April Fang (Hydro One Networks)	HONI e-mailed Gillianne Marshall, providing project updates and notification details.
06/27/2017	Conference Call	Adam Wright (Ministry of the Environment), Anneleis Eckert (Ministry of the Environment)	April Fang (Hydro One Networks), Yu San Ong (Hydro One Networks)	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 (Ministry of the Environment)	April Fang (Hydro One Networks)	HONI sent an invitation to the PIC.
01/10/2018	E-mail	Adam Wright (Ministry of the Environment), Anneleis Eckert (Ministry of the Environment)	Yu San Ong (Hydro One Networks)	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 (Ministry of the Environment) Anneleis Eckert (Ministry of the Environment)	Yu San Ong (Hydro One Networks)	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 (Ministry of the Environment), Paula Allen (Ministry of the Environment)	Yu San Ong (Hydro One Networks)	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 (Ministry of the Environment)	Yu San Ong (Hydro One Networks)	MOECC informed HONI that Mira Majerovich would be looking after the proposed Project.
01/16/2018	E-mail	Anneleis Eckert (Ministry of the	Rachel Afonso (Hydro One Networks) Yu San	HONI e-mailed Mira and Anneleis, offering to schedule a conference call to review the proposed Project and provide project updates.

Date	Method	Stakeholder Contact(s)	Project Team Member(s)	Communication Summary
		Environment), Mira Majerovich (Ministry of the Environment)	Ong (Hydro One Networks) Stephanie Hodsoll (Hydro One Networks)	
03/05/2018	E-mail	Mira Majerovich (Ministry of the Environment)	Yu San Ong (Hydro One Networks)	HONI sent the Final Notification letter.
Ministry of Natural Resources and Forestry				
05/12/2017	E-mail	Kimberly McNaughton (Ministry of Natural Resources and Forestry (Nipigon District))	April Fang (Hydro One Networks)	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.
04/28/2017	E-mail	Kimberly McNaughton (Ministry of Natural Resources and Forestry (Nipigon District))	April Fang (Hydro One Networks)	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 (Ministry of Natural Resources and Forestry (Nipigon District))	April Fang (Hydro One Networks), Yu San Ong (Hydro One Networks)	MNRF e-mailed HONI, to inform that they had spoken to MNDM regarding mining claims.
06/15/2017	Conference Call	Kimberly McNaughton (Ministry of Natural Resources and Forestry (Nipigon District))	April Fang (Hydro One Networks), Yu San Ong (Hydro One Networks)	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 survey, Woodland Caribou) - General project updates (i.e. notifications, FIPPA list, etc.) - First Nation consultation update - MNDM feedback - Coordination of the two Class EA processes
07/14/2017	E-mail	Kimberly McNaughton (Ministry of Natural Resources and Forestry (Nipigon District))	April Fang (Hydro One Networks)	HONI sent an invitation to the PIC.
08/24/2017	Conference Call	Nicole Horde (Ministry of Natural Resources and Forestry (Nipigon District))	April Fang (Hydro One Networks), Yu San Ong (Hydro One Networks)	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

Date	Method	Stakeholder Contact(s)	Project Team Member(s)	Communication Summary
		Kimberly McNaughton (Ministry of Natural Resources and Forestry (Nipigon District))		- General project updates
12/22/2018	E-mail	Kimberly McNaughton (Ministry of Natural Resources and Forestry (Nipigon District))	Rachel Afonso (Hydro One Networks), Yu San Ong (Hydro One Networks)	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 (Ministry of Natural Resources and Forestry (Nipigon District))	Rachel Afonso (Hydro One Networks), Yu San Ong (Hydro One Networks)	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 (Ministry of Natural Resources and Forestry (Nipigon District))	Yu San Ong (Hydro One Networks)	HONI sent the Final Notification letter.
Ministry of Tourism Culture and Sport				
05/12/2017	E-mail	Karla Barboza (Ministry of Tourism, Culture and Sport), Joseph Muller (Ministry of Tourism, Culture and Sport)	April Fang (Hydro One Networks)	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 (Ministry of Tourism, Culture and Sport)	April Fang (Hydro One Networks)	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 (Ministry of Tourism, Culture and Sport)	April Fang (Hydro One Networks), Yu San Ong (Hydro One Networks)	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 (Ministry of Tourism, Culture and Sport), Joseph Muller (Ministry of Tourism, Culture and Sport)	April Fang (Hydro One Networks)	HONI sent an invitation to the PIC.

Date	Method	Stakeholder Contact(s)	Project Team Member(s)	Communication Summary
7/27/2017	E-mail	Joseph Muller (Ministry of Tourism, Culture and Sport)	April Fang (Hydro One Networks), Yu San Ong (Hydro One Networks)	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.
08/23/2017	E-mail	Joseph Muller (Ministry of Tourism, Culture and Sport)	April Fang (Hydro One Networks)	MTCS responded, stating that there were no further comments about the project.
03/05/2018	E-mail	Karla Barboza (Ministry of Tourism, Culture and Sport), Joseph Muller (Ministry of Tourism, Culture and Sport)	Yu San Ong (Hydro One Networks)	HONI sent the Final Notification letter.
Ministry of Northern Development and Mines				
05/12/2017	E-mail	Nicole Beaudry (Ministry of Northern Development and Mines), Priya Tandon (Ministry of Northern Development and Mines), Stephanie Rocca (Ministry of Northern Development and Mines)	April Fang (Hydro One Networks)	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 (Ministry of Northern Development and Mines)	April Fang (Hydro One Networks)	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 (Ministry of Northern Development and Mines)	April Fang (Hydro One Networks)	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 (Ministry of Northern Development and Mines)	April Fang (Hydro One Networks)	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 (Ministry of Northern Development and Mines)	April Fang (Hydro One Networks), Yu San Ong (Hydro One Networks)	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 (Ministry of Northern Development and Mines)	April Fang (Hydro One Networks)	MNDM stated that no further correspondence is necessary, and that MNDM is being kept in the loop by CanAre and NextBridge.

Date	Method	Stakeholder Contact(s)	Project Team Member(s)	Communication Summary
06/22/2017	E-mail	Stephanie Rocca (Ministry of Northern Development and Mines)	April Fang (Hydro One Networks)	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 (Ministry of Energy)	April Fang (Hydro One Networks)	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 (Ministry of Energy)	April Fang (Hydro One Networks)	HONI sent an invitation to the PIC.
03/05/2018	E-mail	Shannon McCabe (Ministry of Energy)	Yu San Ong (Hydro One Networks)	HONI sent the Final Notification letter.
Ministry of Housing				
05/12/2017	E-mail	Victoria Kosny (Ministry of Housing)	April Fang (Hydro One Networks)	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 (Ministry of Housing)	April Fang (Hydro One Networks)	HONI sent an invitation to the PIC.
03/05/2018	E-mail	Victoria Kosny (Ministry of Housing)	Yu San Ong (Hydro One Networks)	HONI sent the Final Notification letter.
Ministry of Municipal Affairs and Housing				
05/12/2017	E-mail	Victor Doyle (Ministry of Municipal Affairs and Housing)	April Fang (Hydro One Networks)	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 (Ministry of Municipal Affairs and Housing)	April Fang (Hydro One Networks)	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 (Ministry of Municipal Affairs and Housing)	April Fang (Hydro One Networks)	HONI sent an invitation to the PIC.
03/05/2018	E-mail	Victor Doyle (Ministry of Municipal Affairs and Housing)	Yu San Ong (Hydro One Networks)	HONI sent the Final Notification letter.
Legislature of Ontario				
07/13/2017	E-mail	Michael Gravelle (Legislature of Ontario)	Simmer Anand (Hydro One Networks)	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.

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 (Town of Marathon)	Stephanie Hodsoll (Hydro One Networks)	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 (Town of Marathon), Brian Hyshka (Town of Marathon)	Stephanie Hodsoll, April Fang, Yu San Ong, Arnold Brakel, Tausha Esquega (Hydro One Networks)	The Project Manager, Indiegnous 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 (Town of Marathon)	April Fang (Hydro One Networks)	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 (Town of Marathon)	April Fang (Hydro One Networks)	HONI sent an invitation to the PIC.
07/24/2017	In-person meeting	Town of Marathon	April Fang (Hydro One Networks), Yu San Ong (Hydro One), 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 (Town of Marathon)	April Fang (Hydro One Networks), Stephanie Hodsoll (Hydro One Networks)	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 (Town of Marathon), Brian Hyshka (Town of Marathon)	Yu San Ong (Hydro One Networks)	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 (Town of Marathon), Brian Hyshka (Town of Marathon)	Yu San Ong (Hydro One Networks)	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 (Town of Marathon), Brian Hyshka (Town of Marathon)	Yu San Ong (Hydro One Networks)	HONI sent the Final Notification letter.

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

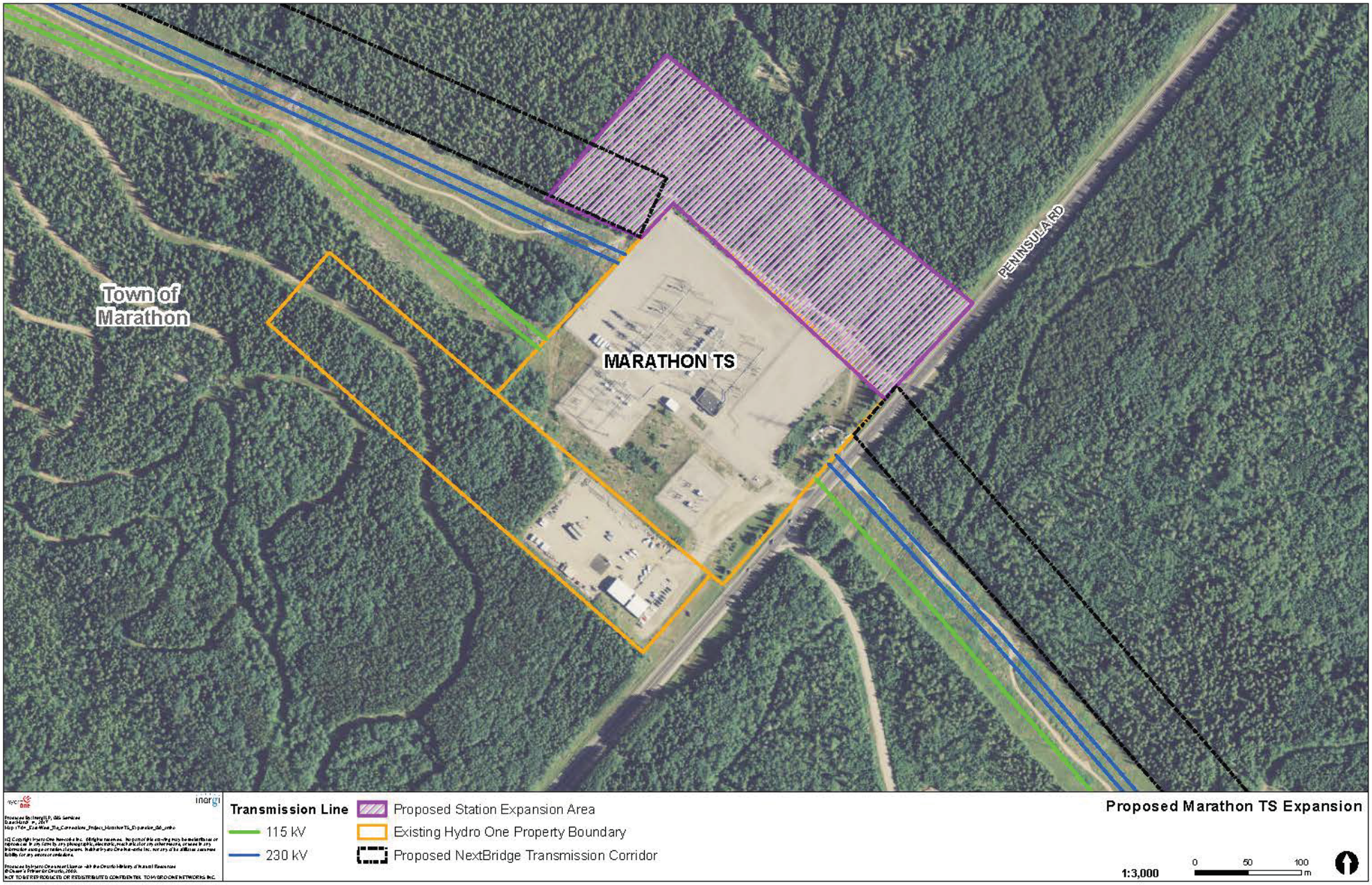
Project Description

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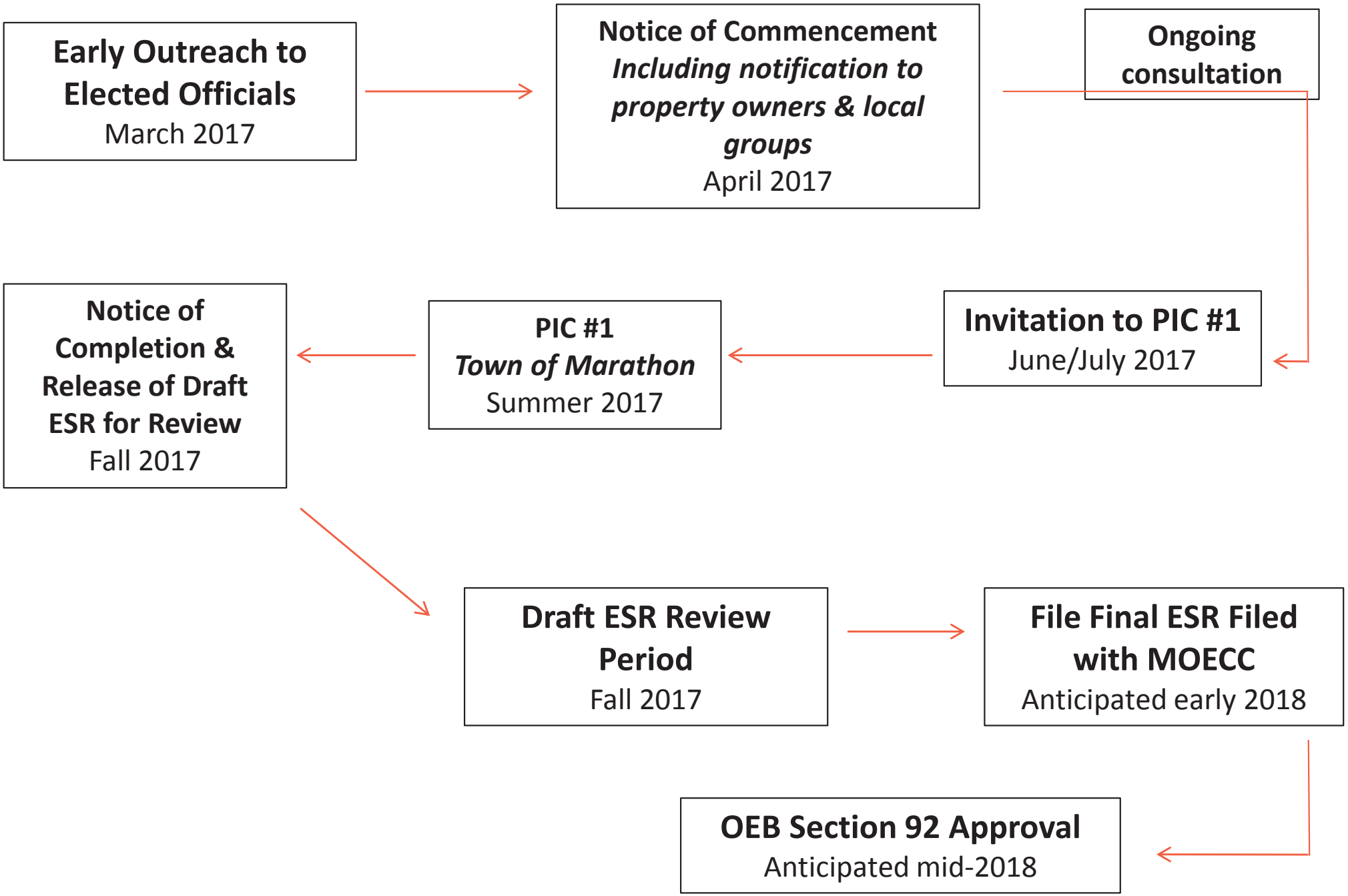
- Consultation with elected officials, government agencies, First Nation communities, interest groups and the public is an important part of the Class EA process - we will provide various opportunities for input on the project.

- 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 (Nawiinginokiima Forest Management Corporation)	April Fang (Hydro One Networks)	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 (Nawiinginokiima Forest Management Corporation)	April Fang (Hydro One Networks)	HONI sent the PIC invitation to NFMC.
03/05/2018	E-mail	Neil McDonald (Nawiinginokiima Forest Management Corporation)	Yu San Ong (Hydro One Networks)	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 Networks)	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 Networks)	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 (Marathon Cross Country Ski and Snowshoe Club), Joe from Marathon	April Fang (Hydro One Networks), Yu San Ong (Hydro One Networks), Stephanie Hodsoll (Hydro One Networks)	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 (Marathon Cross Country Ski and Snowshoe Club), Joe from Marathon	April Fang (Hydro One Networks), Yu San Ong (Hydro One Networks), Stephanie Hodsoll (Hydro One Networks)	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 Networks)	HONI sent the Final Notification letter.
Marathon Sno-Kickers Snowmobile Club				
05/17/2017	Postal Mail	Craig Colbourne (Marathon Sno-Kickers Snowmobile Club)	April Fang (Hydro One Networks)	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 (Marathon Sno-Kickers Snowmobile	April Fang (Hydro One Networks)	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.

		Club)		
03/05/2018	Postal Mail	Craig Colbourne (Marathon Sno-Kickers Snowmobile Club)	Yu San Ong (Hydro One Networks)	HONI sent the Final Notification letter.
Peninsula Golf Course				
05/17/2017	E-mail	Brett Redden (Peninsula Golf Course)	April Fang (Hydro One Networks)	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 (Peninsula Golf Course)	April Fang (Hydro One Networks)	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 (Peninsula Golf Course)	Yu San Ong (Hydro One Networks)	HONI sent the Final Notification letter.
Superior Ridge Runners ATV Club				
05/17/2017	E-mail	Gord Linfield (Superior Ridge Runners ATV Club)	April Fang (Hydro One Networks)	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 (Superior Ridge Runners ATV Club)	April Fang (Hydro One Networks)	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 (Superior Ridge Runners ATV Club)	Yu San Ong (Hydro One Networks)	HONI sent the Final Notification letter.
Ontario Federation of Snowmobile Clubs – District 17 – Thunder Bay				
03/05/2018	Postal Mail	OFSC – Distirct 17	Yu San Ong (Hydro One Networks)	HONI sent the Final Notification letter.
Shack Lake Bulk Sampling Project – Mining Claims #1218370 and #4241515				
03/05/2018	Postal Mail	Gerald Blakely (Shack Lake Bulk Sampling Project)	Yu San Ong (Hydro One Networks)	HONI sent the Final Notification letter.

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 Networks)	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 Networks)	HONI issued PIC invitations to 1л 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 Networks)	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 Networks)	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

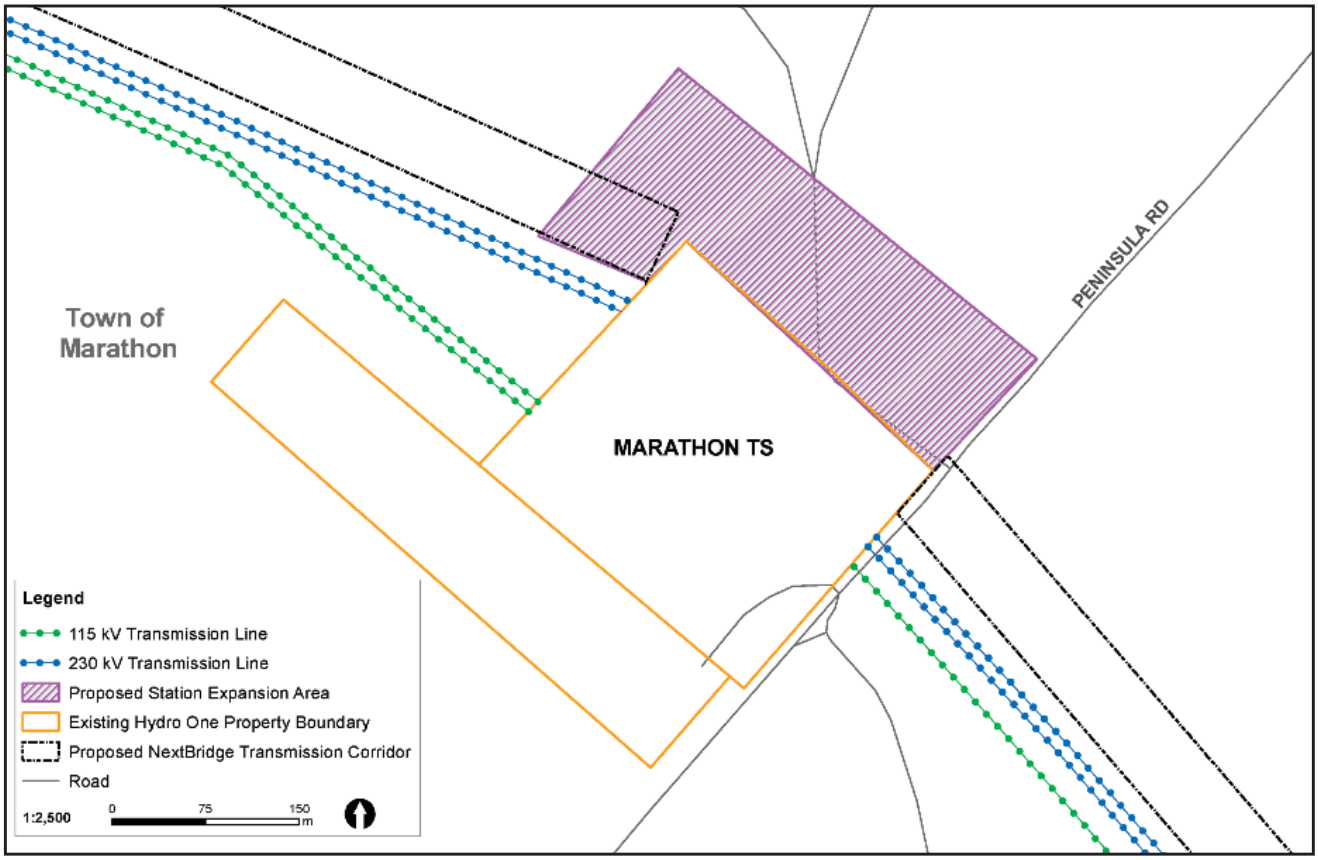
The proposed project

- 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

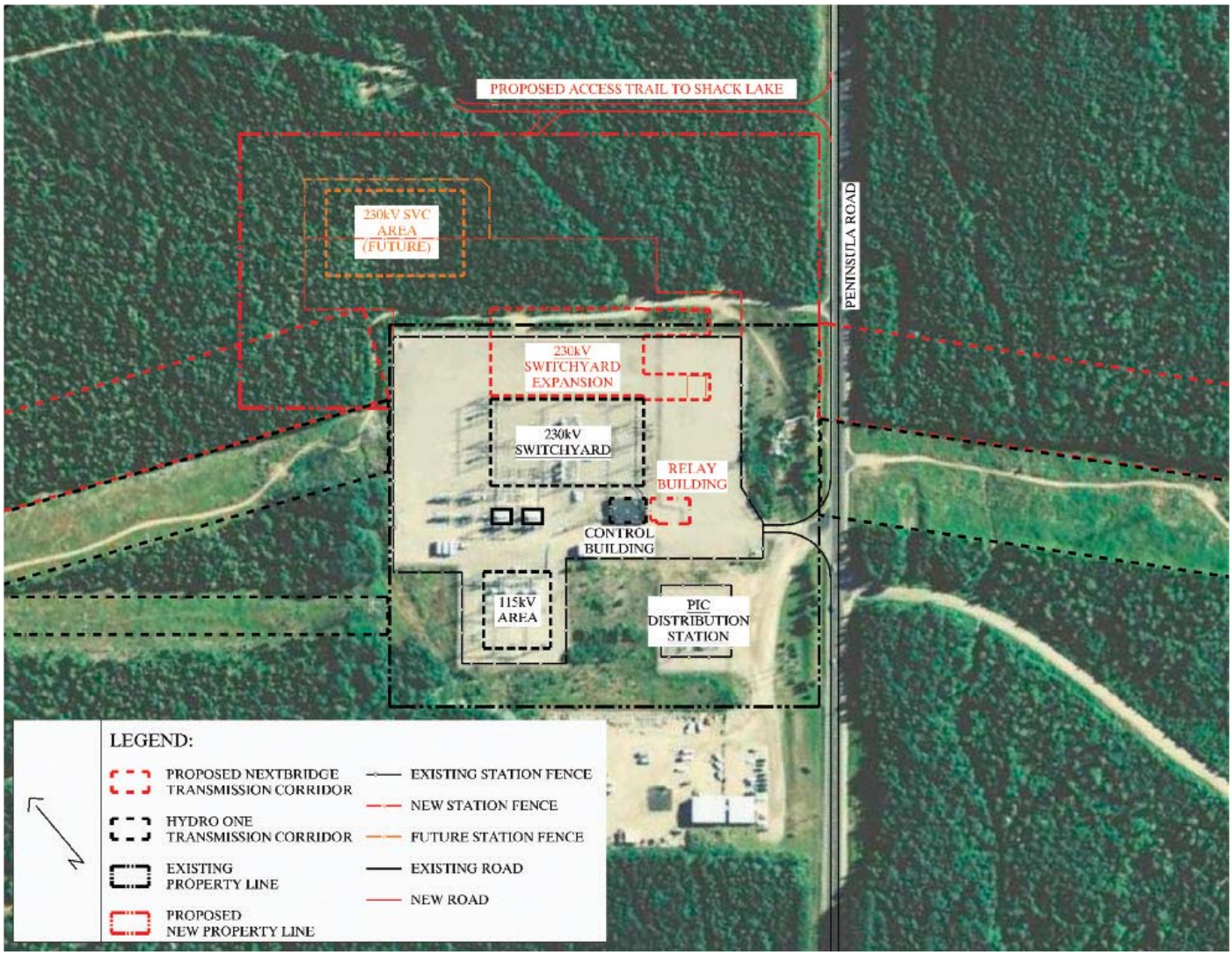
- Environmental surveys were conducted between July 7 – 9, 2017
- Breeding bird, crepuscular and amphibian surveys completed
- No Species at Risk (SAR) were observed or heard, including Woodland Caribou
- Aquatic resources are not anticipated to be impacted by this project

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

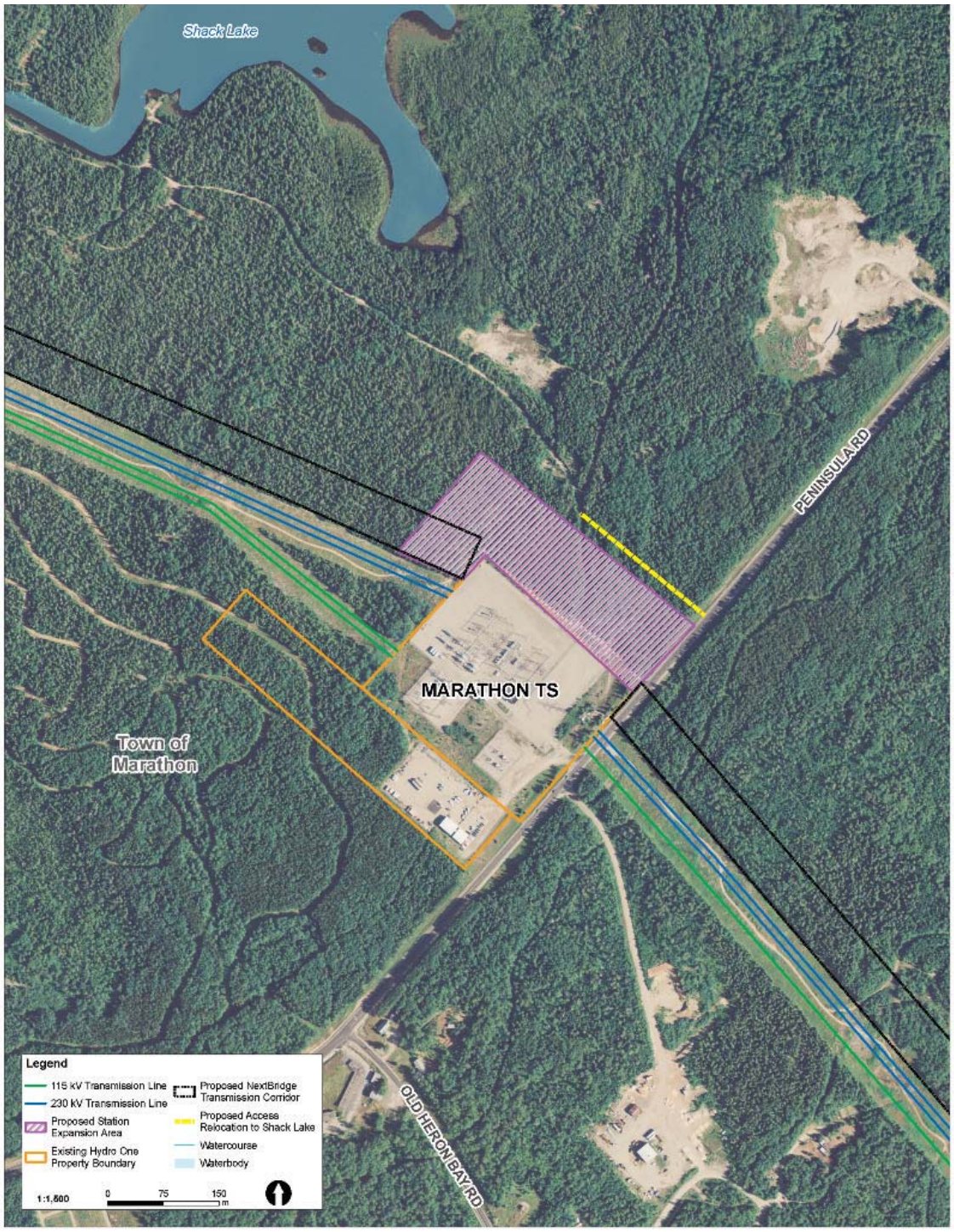


Partners in Powerful Communities

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

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 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
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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.

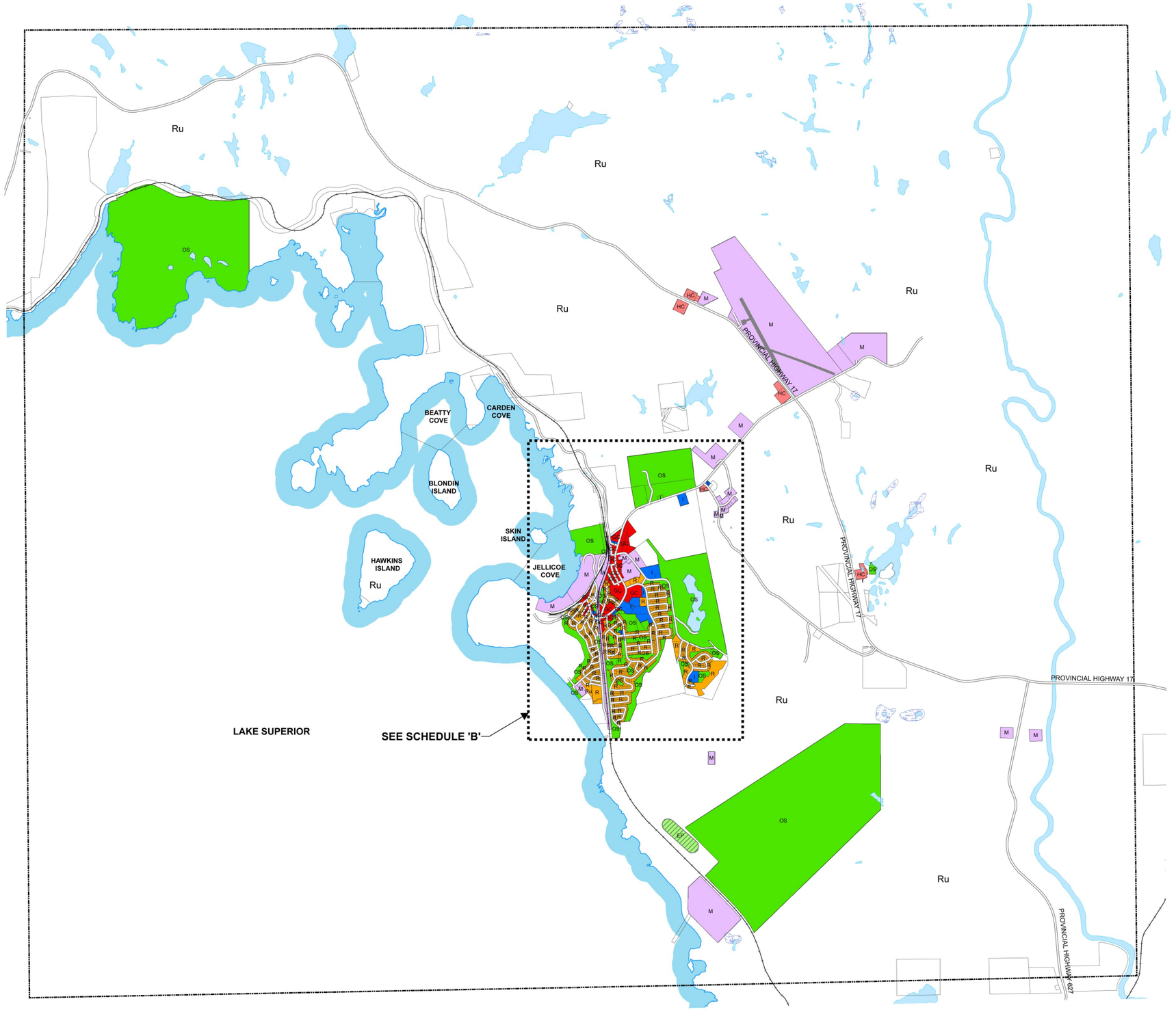
APPENDIX B:

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

Quartek Group Inc.
architects engineers planners
www.quartekgroup.com

Project No.
11874

Printed
Oct 26, 2016
Quartek

Projection:
Transverse Mercator
NAD 1983 UTM - Zone 15N

N

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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Project No. 11874

Printed Oct 26, 2016 Quartek

Projection:
Transverse Mercator
NAD 1983 UTM - Zone 15N

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: February 6, 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**

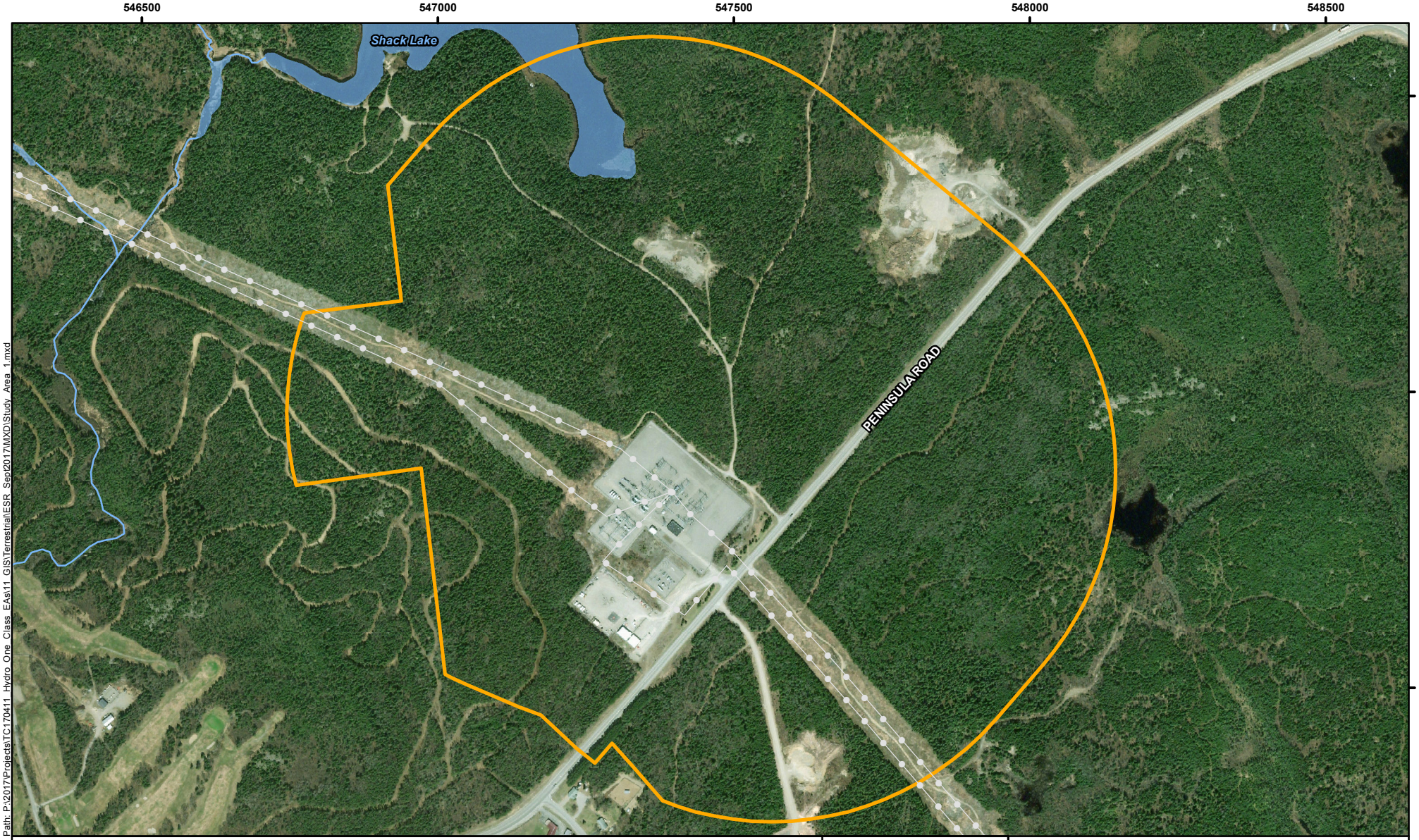
1.0 INTRODUCTION

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 study area is located within Ecoregion 3E 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 1, Figure 2). Anthropogenic classification included the existing Marathon TS.

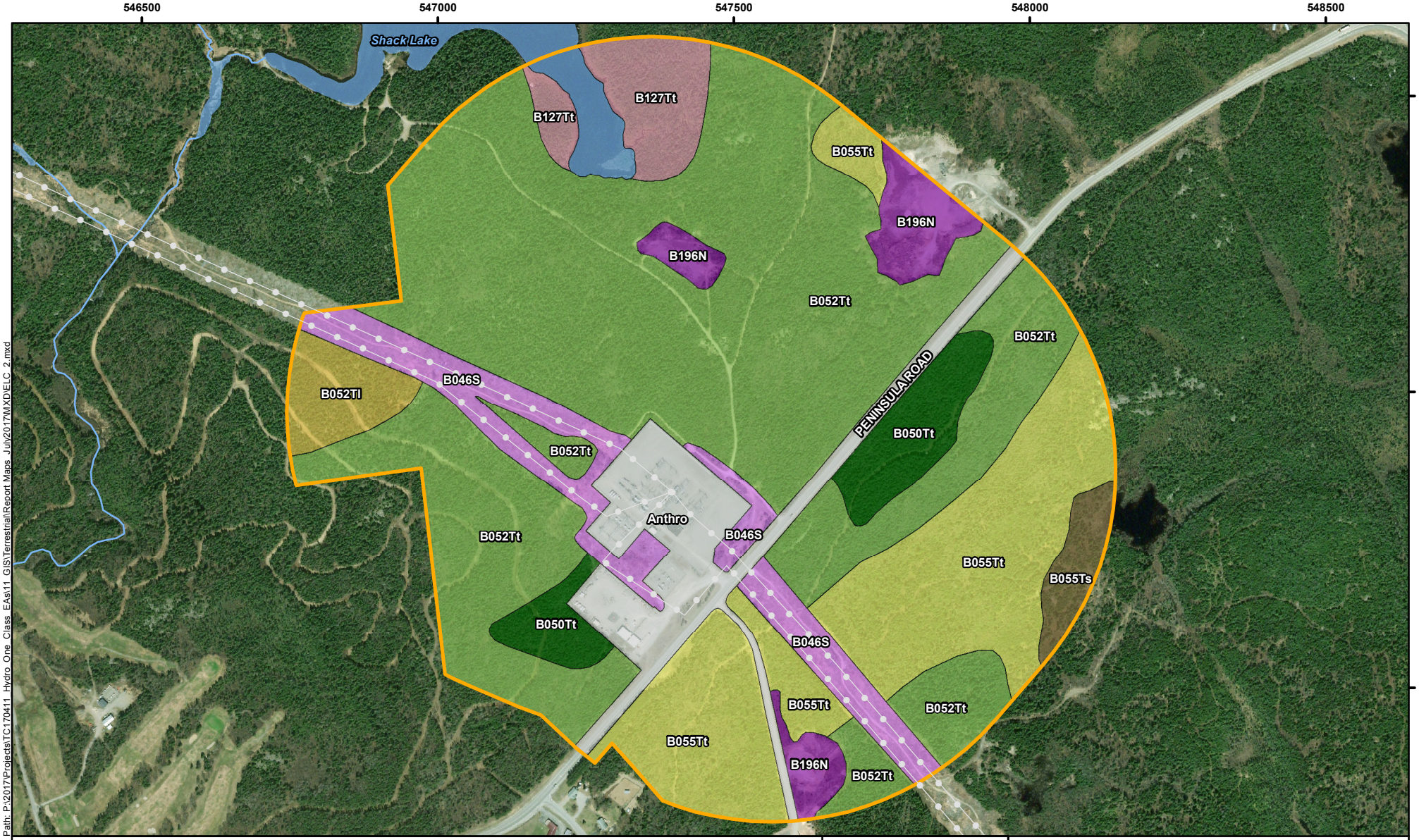
A total of 95 plants species were identified through field surveys (Table 2, Appendix A, Photos 8 - 11). However, no rare, sensitive or SAR were recorded. Vegetation communities were largely comprised of species typical of the southern boreal forest such as White Spruce (*Picea glauca*), Black Spruce (*Picea mariana*), Balsam Fir (*Abies balsamea*), Jack Pine (*Pinus banksiana*) and White Birch (*Betula papyrifera*).

Table 1: 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: 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*
Green Alder	*Alnus viride*
Jack Pine	*Pinus banksiana*
Mountain Maple	*Acer spicatum*
Pin Cherry	*Prunus pennsylvanica*
Showy Mountain-ash	*Sorbus decora*
Speckled Alder	*Alnus incana*
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*
Mooseberry	*Viburnum edule*
Prickly Wild Rose	*Rosa acicularis*
Serviceberry species	*Amelanchier sp.*
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*
Leatherleaf	*Chamaedaphne calyculata*
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*
Skunk Currant	*Ribes glandulosa*
Small Cranberry	*Vaccinium oxycoccus*
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. Recent incidental MNRF data has also shown caribou in locations in close proximity to Marathon indicating that they may have been trying to get around town; however, the extent to which caribou attempt to move around Marathon or the level of landscape permeability for caribou movement in this local area cannot be confirmed without the implementation of a satellite telemetry monitoring program. Generally, cumulative impacts on the landscape from development can act to create barriers to movement of agile species such as Woodland Caribou.

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.

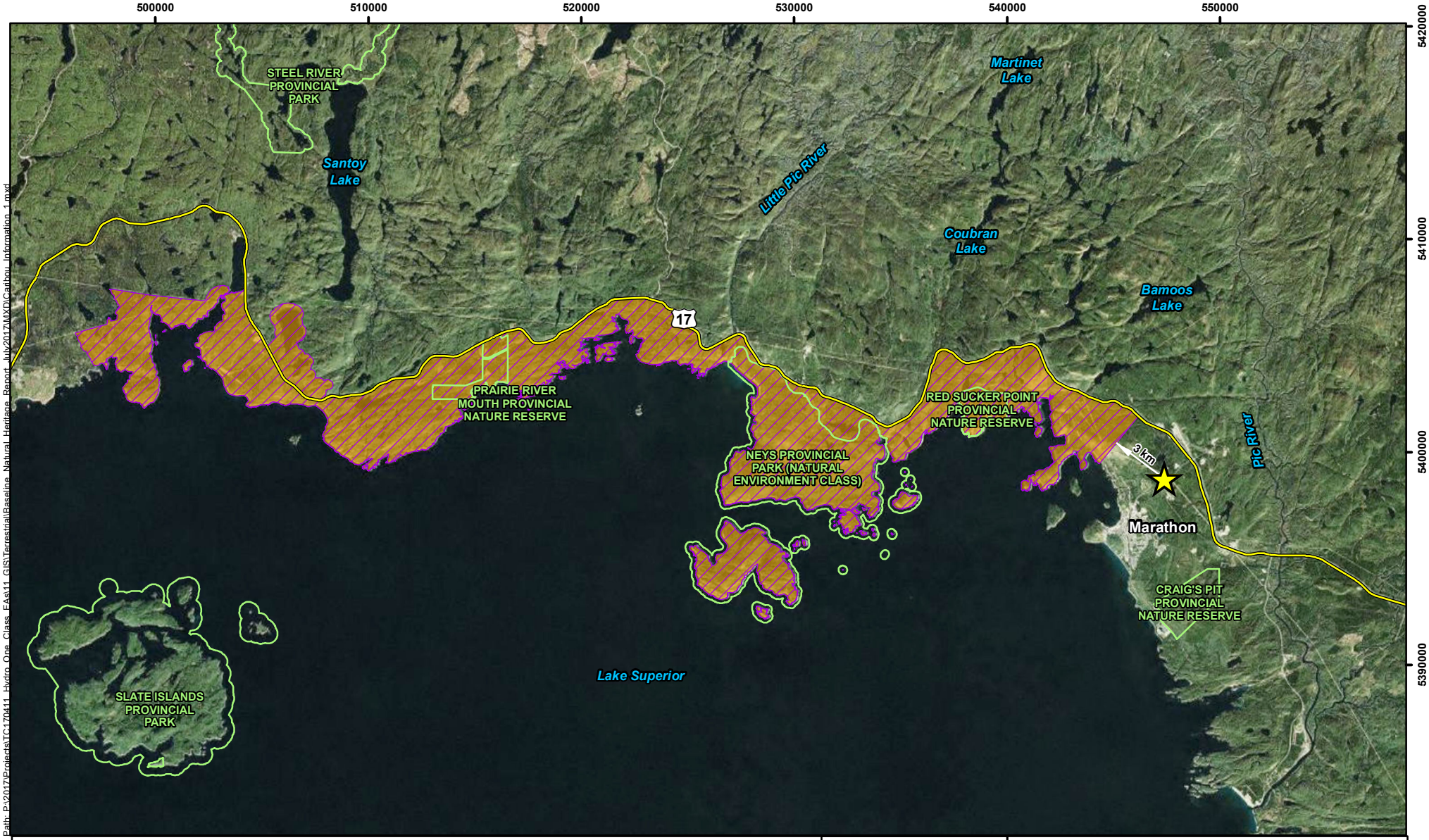
2.2.1.2 SAR mammals

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 with a defined window of May 7 – July 15 in northwest Ontario (MNRF 2013). Post-calving season occurs from July 15 to November 14 (Ferguson and Elkie 2004, MNRF 2013). 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).



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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 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 Whippoorwill and Common Nighthawk were detected during surveys. 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 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

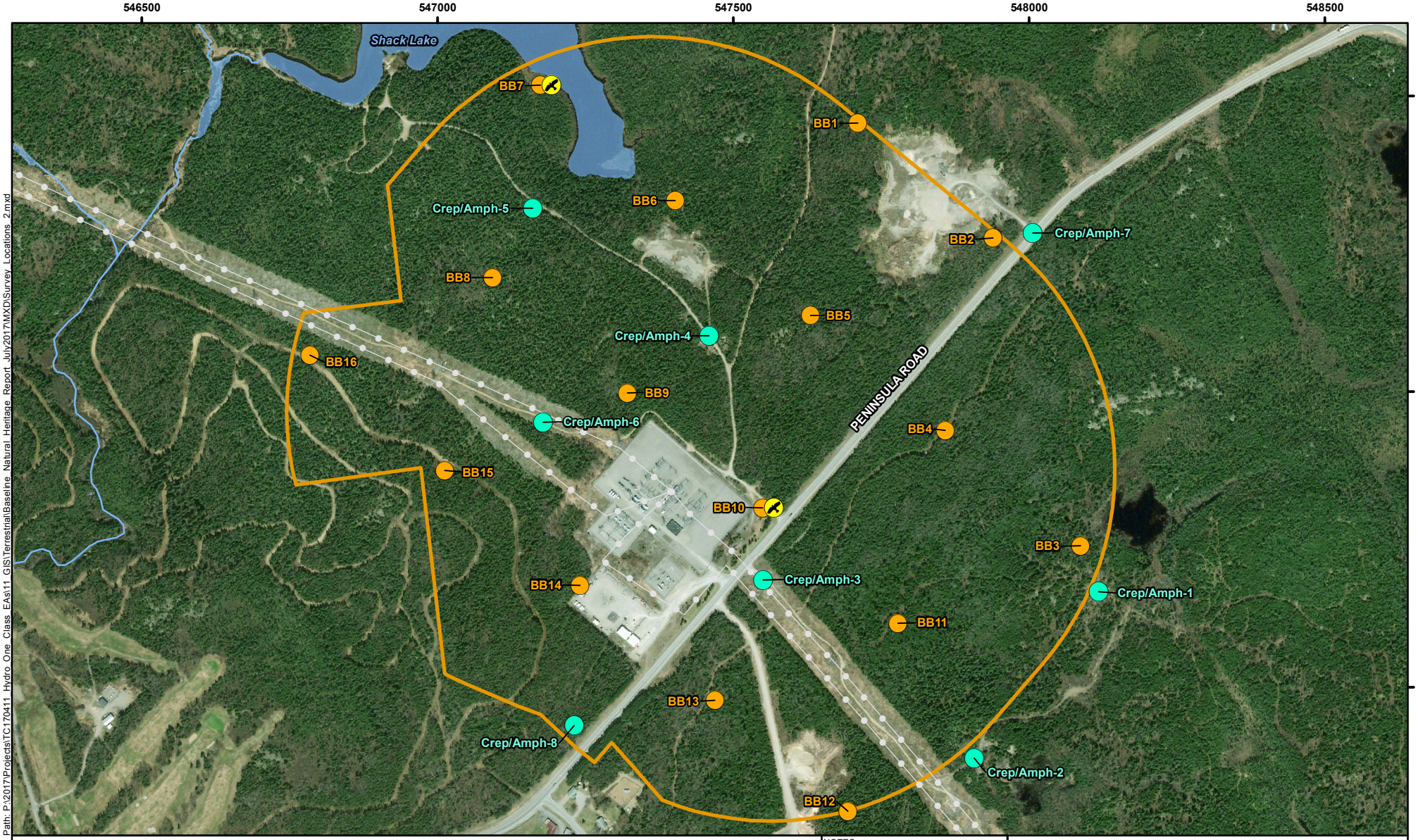
Crepuscular amphibian call surveys were undertaken in areas identified as potentially suitable amphibian habitat (i.e. vernal pools, wetlands, etc.) through the SWH surveys and available secondary source mapping. Species were identified by their unique vocalizations or by direct observation. Surveys 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.

hydro one

amec foster wheeler

MARATHON TS EXPANSION

Breeding Bird and Amphibian Survey Locations within the Study Area

Datum & Projection: NAD 1983 UTM Zone 16N

0 0.1 0.2 0.4 0.6 0.8 1 Kilometres

N W E S

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.
- 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.

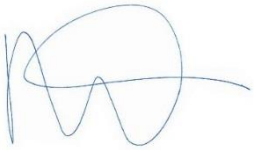
4.0 CLOSURE

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.

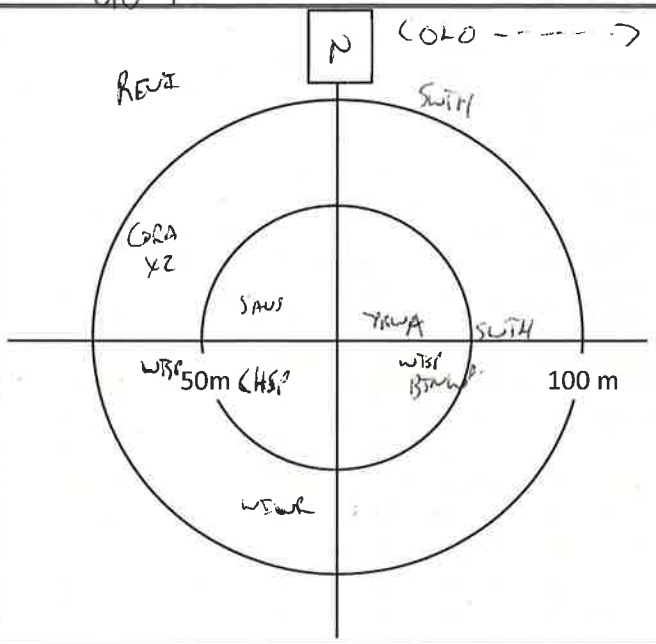
APPENDIX B –Ecological Land Classification (ELC) & Breeding Bird Survey (BBS) Field Forms

Breeding Bird Survey Form

amec foster wheeler
Amec Foster Wheeler
160 Traders Blvd East,
Mississauga, ON L4Z 3K7
Tel: (905) 568-2929

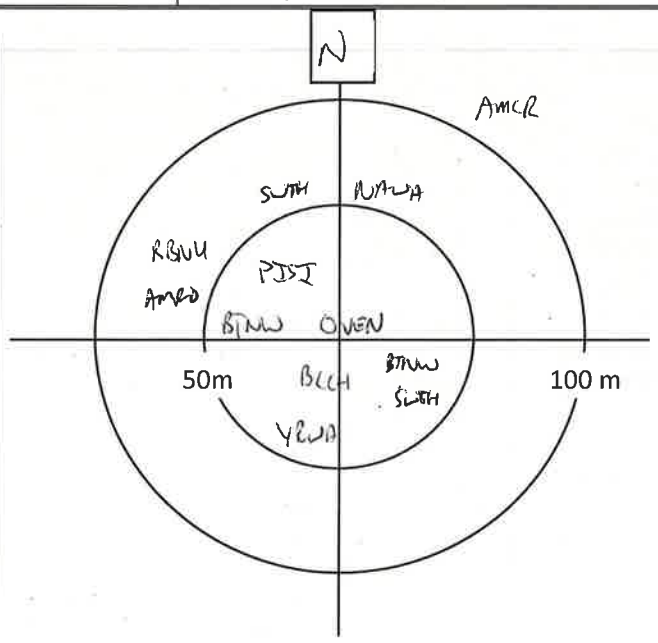
Project Name: Hydro One	Project Number:	Observers: DAC	Date: Jul 8	Round: 1
Point Count #: BBID	UTM:		Primary Habitat:	Modifier:
Cloud: 5	Temp (°C): 10	Wind: 1	Precip: 0	Start (24hr): 610	Secondary Habitat:	Modifier:

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

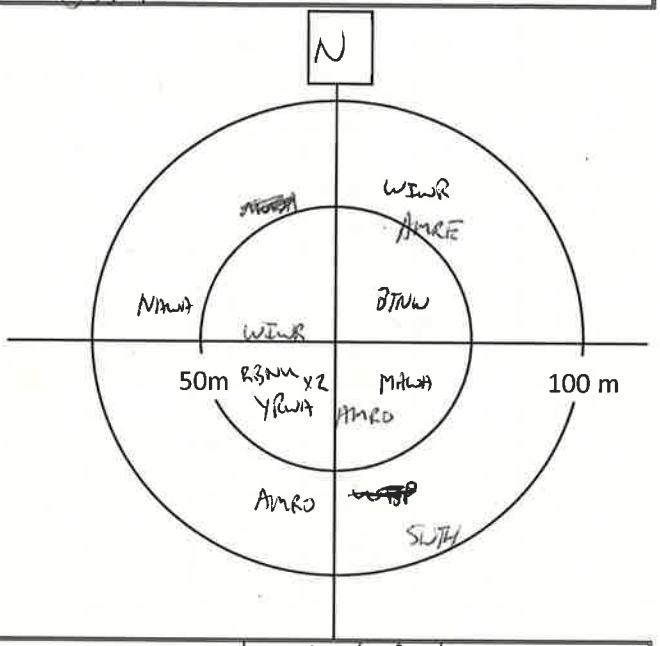
Observed (OB)		Probable (PR)		Confirmed (CO)	
X Species Observed	P Pair Observed	A Aggressive Behaviour	DD Distraction Display	FS Carrying Fecal Sac
Possible (PO)	T Territory	N Nest	NU Used Nest	CF Carrying Food
H Suitable Habitat	D Courtship or Display	V Visiting Probable Nest Site	FY Feeding Young	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

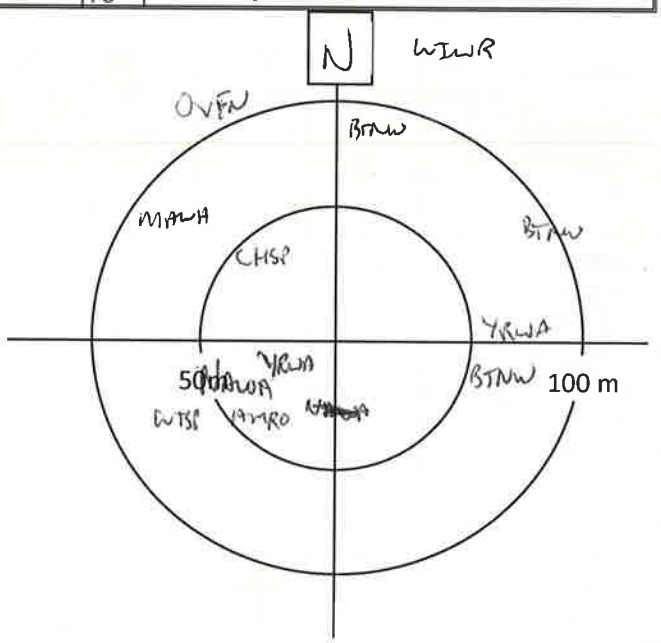
Project Name:	Hydro One	Project Number:		Observers:	DAC	Date:	Jul 8	Round:	1
Point Count #:	BB1	UTM:				Primary Habitat:	5	Modifier:	
Cloud:	0	Temp (°C):	13	Wind:	1	Precip:	0	Start (24hr):	653	Secondary Habitat:		Modifier:	

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:	Hydro One	Project Number:		Observers:	DAC	Date:	Jul 8	Round:	1
Point Count #:	BB2	UTM:				Primary Habitat:	2	Modifier:	2
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

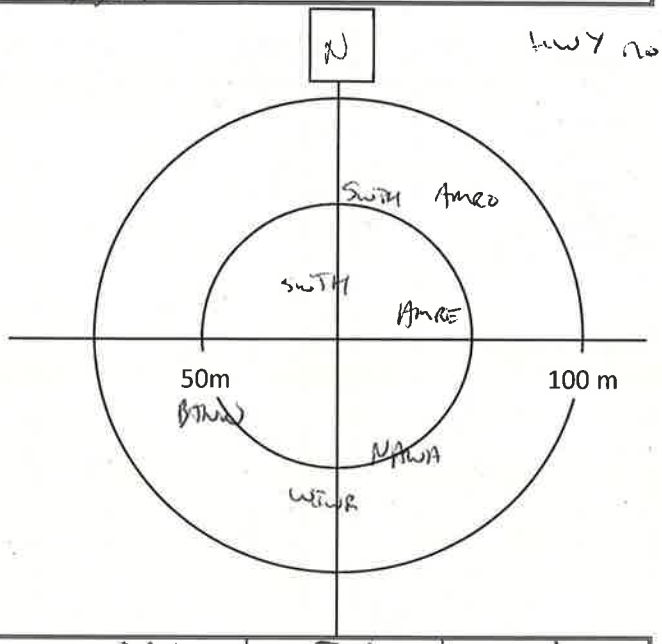
Observed (OB)		Probable (PR)		Confirmed (CO)			
X	Species Observed	P	Pair Observed	A	Aggressive Behaviour	DD	Distraction Display	FS	Carrying Fecal Sac
Possible (PO)		T	Territory	N	Nest	NU	Used Nest	CF	Carrying Food
H	Suitable Habitat	D	Courtship or Display	V	Visiting Probable Nest Site	FY	Feeding Young	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:

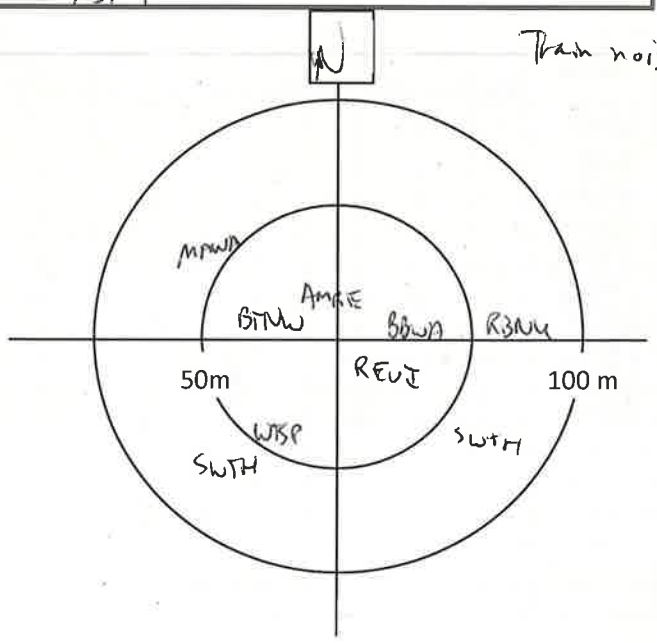
Species	<50 m			50-100 m			>100 m			Breeding Evidence
	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	
WIWR				1						
SWTH	1			1						
AMRO				1						
NAWA				1						
AMRE	1									
BTNW				1						



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

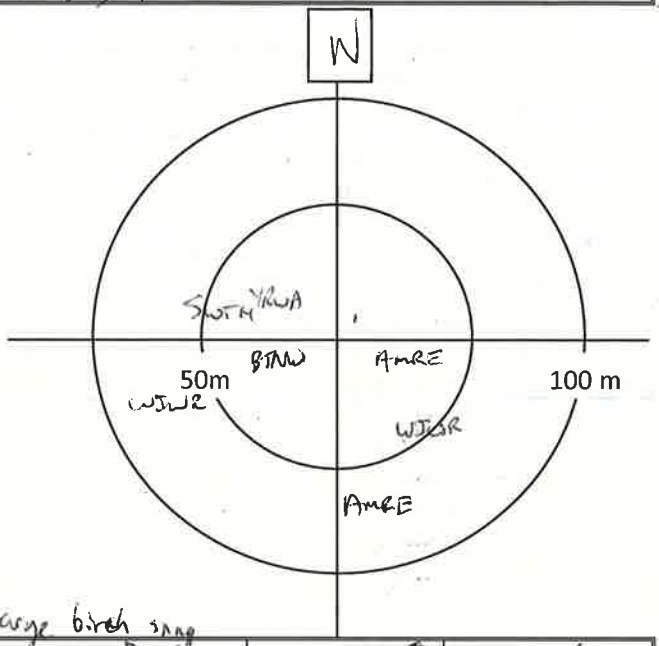
Observed (OB)		Probable (PR)				Confirmed (CO)			
X	Species Observed	P	Pair Observed	A	Aggressive Behaviour	DD	Distraction Display	FS	Carrying Fecal Sac
Possible (PO)		T	Territory	N	Nest	NU	Used Nest	CF	Carrying Food
H	Suitable Habitat	D	Courtship or Display	V	Visiting Probable Nest Site	FY	Feeding Young	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:	

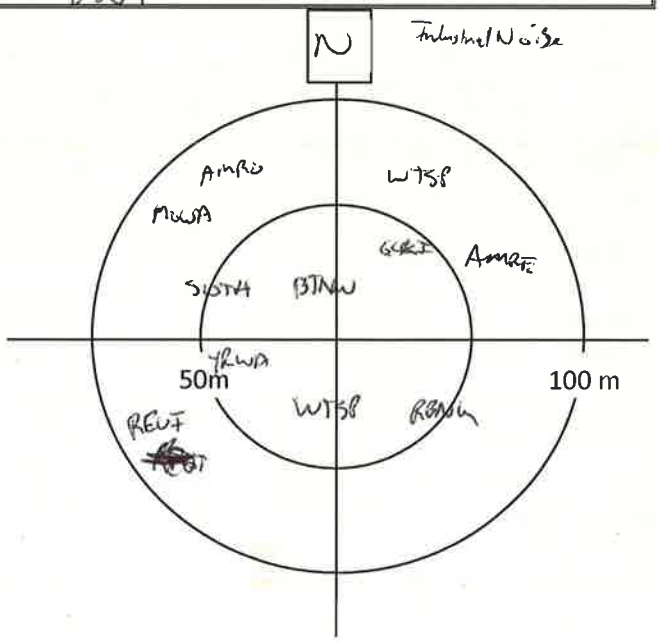
Species	<50 m			50-100 m			>100 m			Breeding Evidence
	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	
WIWR	1				1					
SWTH	1									
AmRE	1				1					
YRWA	1									
BTNW	1									



Very large birch snag

Project Name:		Project Number:		Observers:	DAC	Date:	Jul 8	Round:	1
Point Count #:	BB17	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			½				
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

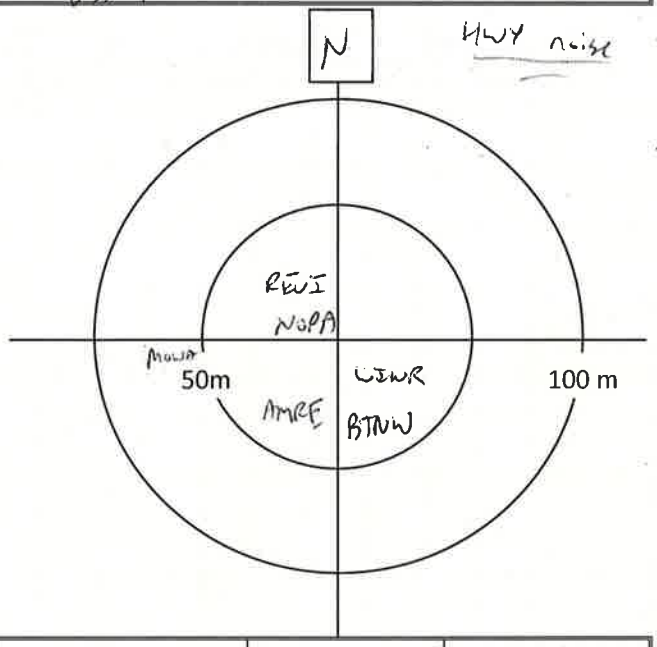
Observed (OB)		Probable (PR)			Confirmed (CO)			
X	Species Observed	P	Pair Observed	A	Aggressive Behaviour	DD	Distraction Display	FS	Carrying Fecal Sac
Possible (PO)		T	Territory	N	Nest	NU	Used Nest	CF	Carrying Food
H	Suitable Habitat	D	Courtship or Display	V	Visiting Probable Nest Site	FY	Feeding Young	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

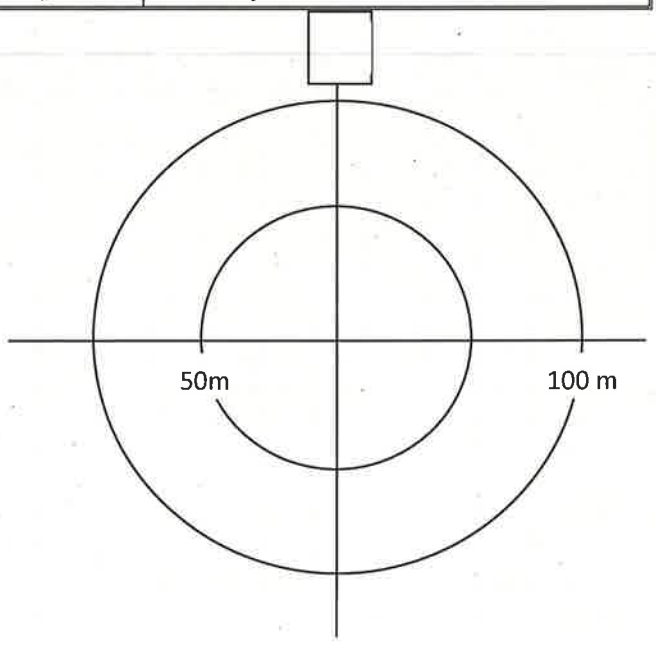
Project Name:	Hydro One	Project Number:		Observers: DJC	Date: Jul 8	Round: 1
Point Count #:	B1313	UTM:			Primary Habitat: 5	Modifier: 3
Cloud: 0	Temp (°C): 13	Wind: 2	Precip: 0	Start (24hr): 855	Secondary Habitat:	Modifier:

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									
WEWR	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

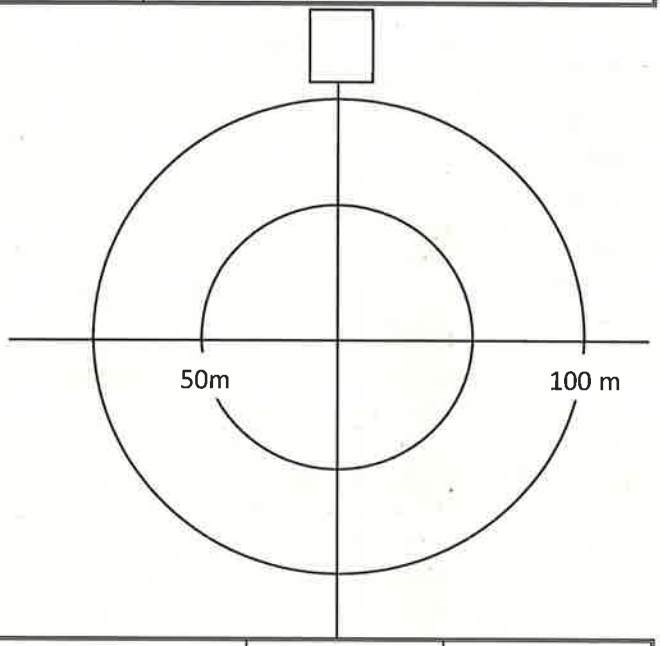
Observed (OB)		Probable (PR)		Confirmed (CO)			
X	Species Observed	P	Pair Observed	A	Aggressive Behaviour	DD	Distraction Display	FS	Carrying Fecal Sac
Possible (PO)		T	Territory	N	Nest	NU	Used Nest	CF	Carrying Food
H	Suitable Habitat	D	Courtship or Display	V	Visiting Probable Nest Site	FY	Feeding Young	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

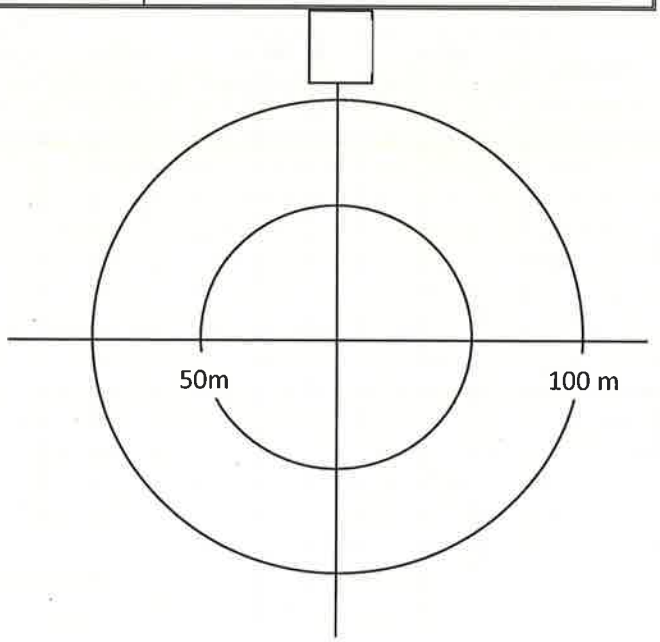
Project Name:	Project Number:	Observers:	Date:	Round:
Point Count #:	UTM:		Primary Habitat:	Modifier:
Cloud:	Temp (°C):	Wind:	Precip:	Start (24hr):	Secondary Habitat:	Modifier:

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

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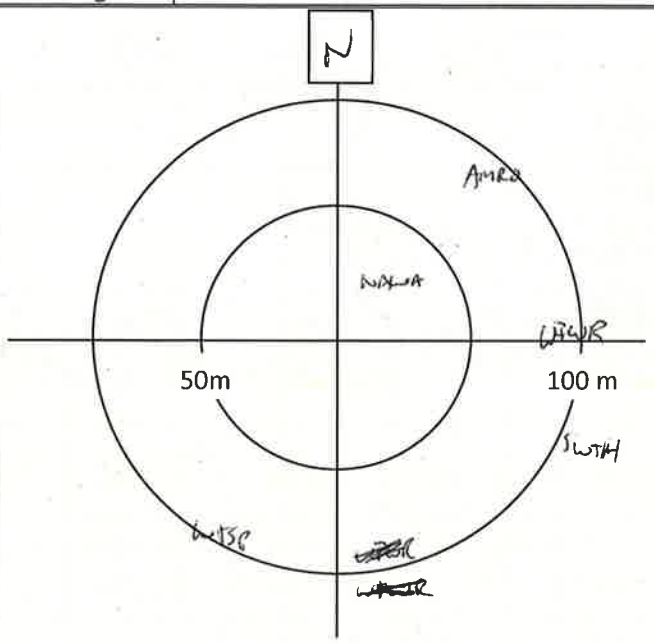
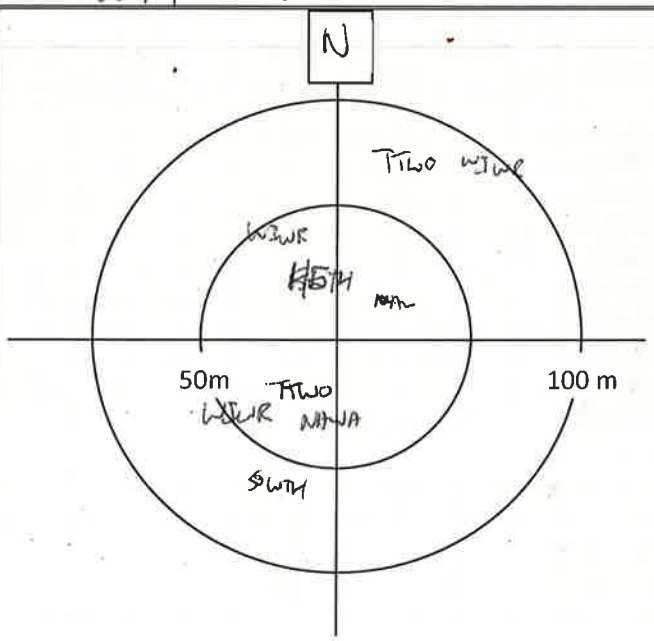
Project Name:	Hydro One	Project Number:		Observers: DAC	Date: Jul 9	Round: 2
Point Count #:	639	UTM:			Primary Habitat: 6	Modifier: 3-4
Cloud: 100	Temp (°C): 14	Wind: 1	Precip: 1	Start (24hr): 620	Secondary Habitat:	Modifier:

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			
WITP				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						
MEMH	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
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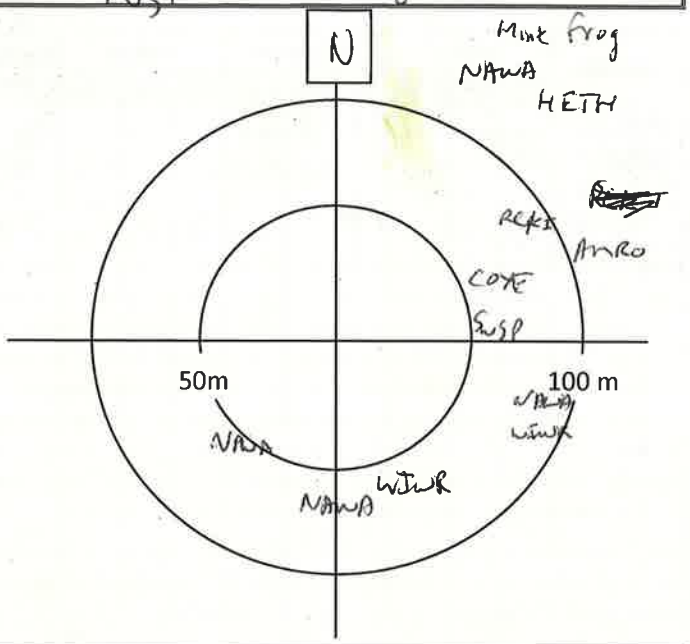
160 Traders Blvd East,
Mississauga, ON L4Z 3K7
Tel: (905) 568-2929

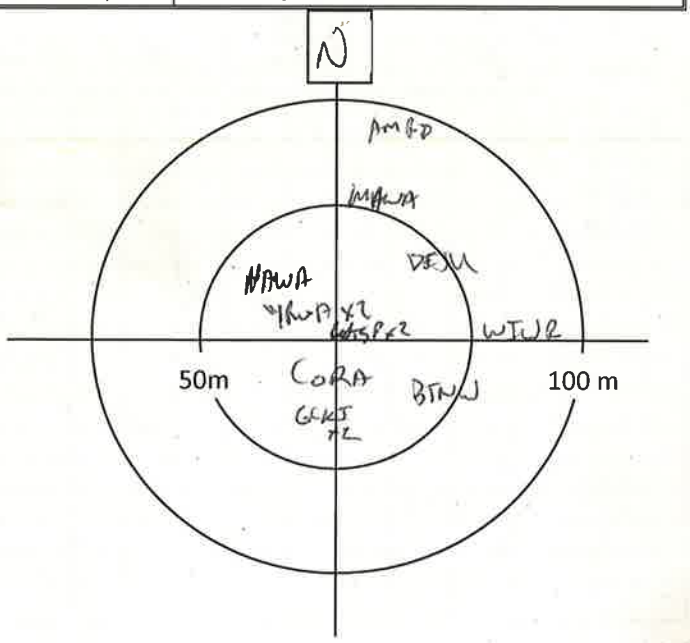
Project Name:	Hydro One	Project Number:		Observers:	DDC	Date:	Jul 9	Round:	2
Point Count #:	BB7	UTM:				Primary Habitat:	14	Modifier:	
Cloud:	100	Temp (°C):	15	Wind:	1	Precip:	1	Start (24hr):	703	Secondary Habitat:	6	Modifier:	

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 #:	BB8	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
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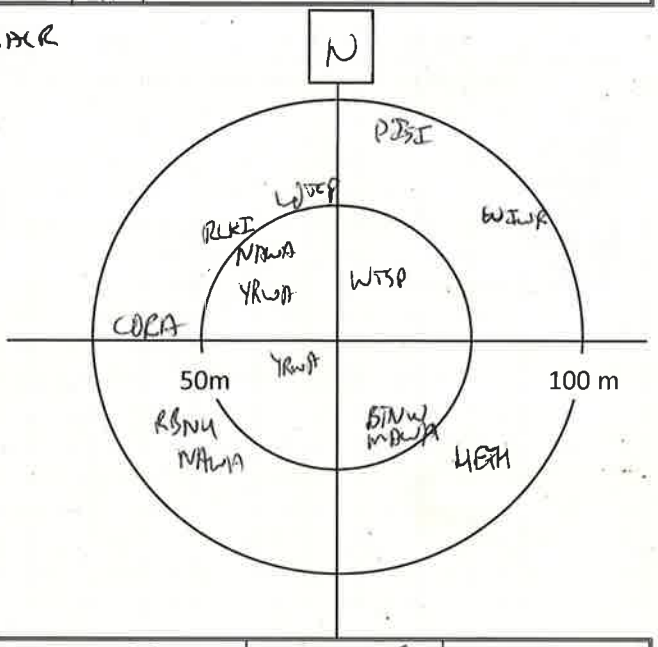
Mississauga, ON L4Z 3K7
Tel: (905) 568-2929

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:							

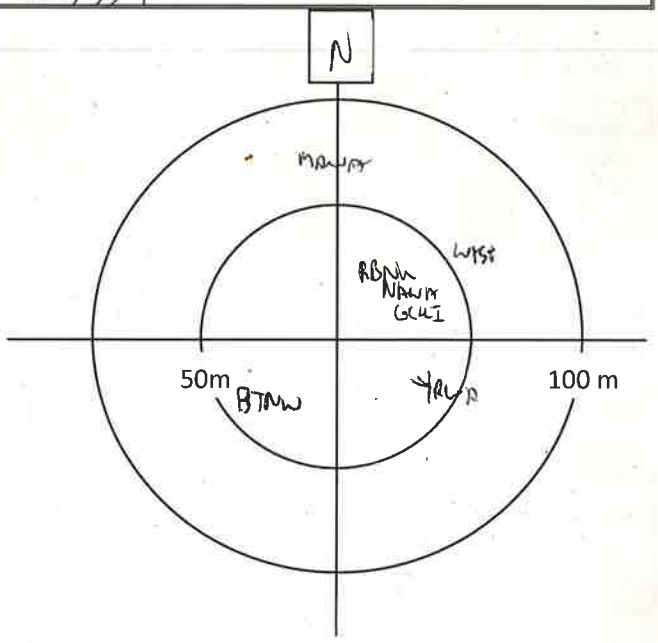
Species	<50 m			50-100 m			>100 m			Breeding Evidence
	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	0-3m	3-5m	5-10m	
RLKI				1						
METH				1						
NAWA	1									
MAWA	1			1						
YRWA	11									
WTSP	1			1						
BTNW	1									
WIWR					1					
SACR								1		
CORA						1				
PISI						1				
RBNU						1				

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

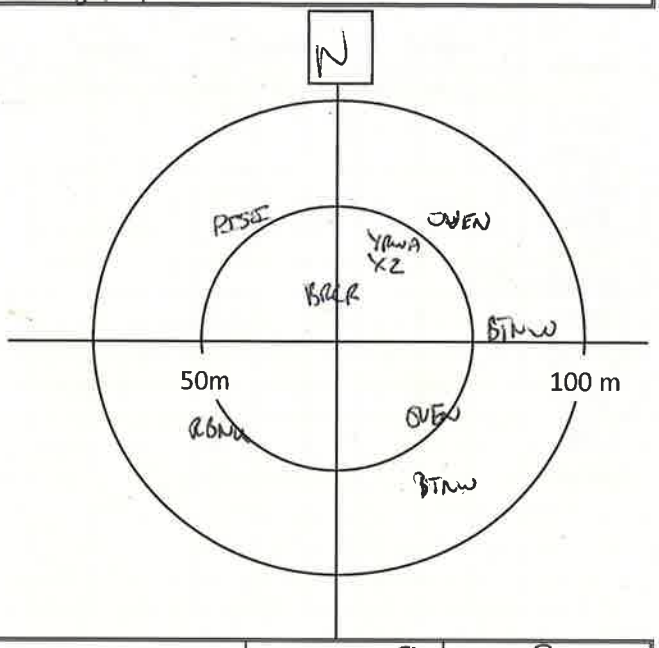
Observed (OB)		Probable (PR)				Confirmed (CO)			
X	Species Observed	P	Pair Observed	A	Aggressive Behaviour	DD	Distraction Display	FS	Carrying Fecal Sac
Possible (PO)		T	Territory	N	Nest	NU	Used Nest	CF	Carrying Food
H	Suitable Habitat	D	Courtship or Display	V	Visiting Probable Nest Site	FY	Feeding Young	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

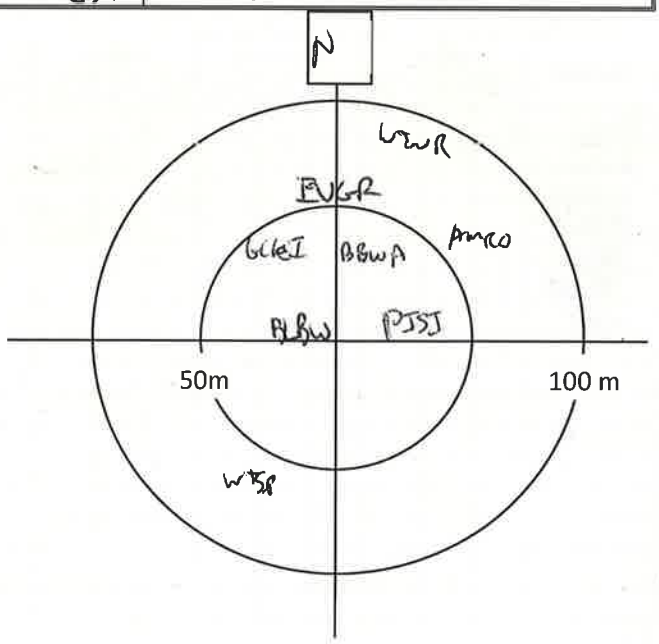
Project Name:	Hydro One	Project Number:		Observers:	DAC	Date:	Jul 9	Round:	2
Point Count #:	BB17	UTM:				Primary Habitat:	5	Modifier:	4
Cloud:	95	Temp (°C):	15	Wind:	2	Precip:	0	Start (24hr):	813	Secondary Habitat:		Modifier:	

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:	2	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	
WIWR				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 > PICGLA) > 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	R	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	
PINBANK				O	
ALNING					
RUB_SP					
POPBALS					
ALNINCR					
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				
MONFIF	R				
CORMACU					
PLAMAJO					
TRIHYBR					
SIBTRIF					
LEWLG					
SISYRINCHIUM SP					
SOLJUNC					
ANAMARG					
EURMACR					
VACMACR					
RANACRE					
TRIREPE					
TAROFFI					
HIE_SP					
VICCRAC					
ACHMILL					
CHAANGU					
ERAVIRG					

trees

EDGE

shrubs

forbs

pine

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. Shrub(Unk)								

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 > SALIX
4	GRD. LAYER	6	4	CHACAL = MIRSAI > 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	A	> 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):	

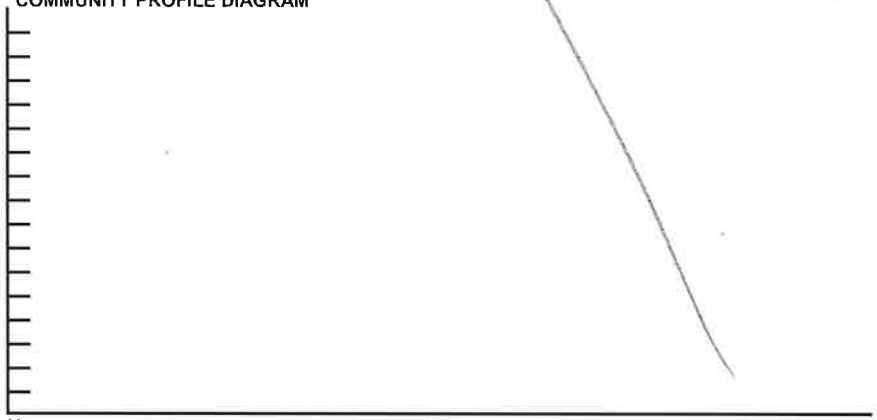
TREE TALLY BY SPECIES:

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	
RHOGRE			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	
CEURIA				O	
EQUSYLV				O	
CORCANA				A	
Grass				O	

SPECIES CODE	LAYER 1	2	3	4	COL.

ELC

MANAGEMENT / DISTURBANCE

SITE: Marathon
POLYGON: MARK003
DATE: 08 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: MAR010

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	
POPTREM	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.
ARITRI				A	
TRIBOREA				O	
DRYCART				O	
CALCANA				A	
CLIBOREA				O	
SILVLG				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: Merathon
POLYGON: MAR 010
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: Marathon TS		POLYGON: MAR 011	
SURVEYOR(S): RDM, DK	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			**COVER**		
G OPEN WATER G SHALLOW WATER G SURFICIAL DEP. G BEDROCK			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	3	PICGLAU
2	SUB-CANOPY	3	3	PICGLAU > ABIBAL
3	UNDERSTOREY	4	2	PICGLAU > ABIBAS
4	GRD. LAYER	5	4	VACANGU CORCANA > PICGLAU > 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	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):

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: MAR011
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.
PICGLAV	A	A	A	A	
LARLAR	R	R	R	R	
ABIBALS	R	O	O	O	
Salix			O	O	
Amelanchier			O	O	
VACANGU				A	
ROSACE				O	

SPECIES CODE	LAYER 1	2	3	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 CILIORE				O	
PTEAQUI				A	
LYCPENN				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 (ºC):	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 ON		POLYGON: M[illegible]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 (circled) G WETLAND G AQUATIC	G ORGANIC G MINERAL SOIL (circled) 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 (circled) G CULTURAL	G PLANKTON G SUBMERGED G FLOATING-LVD. G GRAMINOID G FORB G LICHEN G BRYOPHYTE G DECIDUOUS G CONIFEROUS G MIXED (circled)	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 (circled) G PLANTATION
SITE			**COVER**		
G OPEN WATER G SHALLOW WATER G SURFICIAL DEP. G BEDROCK			G OPEN G SHRUB G TREED (circled)		

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>PICGLAU> sorbus
2	SUB-CANOPY	3	3	BETPAP>>ABIBAL> sorbus > ACESPIC
3	UNDERSTOREY	4	3	ACESPIC > BETPAP amelanchier
4	GRD. LAYER	6	4	CLEBIRE=DRYCART ~~[illegible]~~ ACESPIC>ARITRIP

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.
ABIBAL	O	O	O	O	
BETPAP	A	A	A	A	
PICGLAU	O	O	O	O	
amelanchier		O	O	O	
SAMNIGR				R	
ROSACIC				R	
VIBEDULE				R	
DIELONI				A	
ACESPI		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	
ARITRID				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 020	
	SURVEYOR(S): RGM, DC	DATE: Jul 9	TIME: start / finish	
	UTMZ:	UTME:	UTMN:	

POLYGON DESCRIPTION

SYSTEM	SUBSTRATE	TOPOGRAPHIC FEATURE	HISTORY	PLANT FORM	COMMUNITY
G TERRESTRIAL (circled) G WETLAND G AQUATIC	G ORGANIC G MINERAL SOIL (circled) 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 (circled) G CLIFF G TALUS G CREVICE / CAVE G ALVAR G ROCKLAND G BEACH / BAR G SAND DUNE G BLUFF	G NATURAL (circled) G CULTURAL	G PLANKTON G SUBMERGED G FLOATING-LVD. G GRAMINOID G FORB G LICHEN G BRYOPHYTE G DECIDUOUS (circled) G CONIFEROUS (circled) 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 (circled) G PLANTATION
SITE			**COVER**		
G OPEN WATER G SHALLOW WATER G SURFICIAL DEP. (circled) G BEDROCK			G OPEN G SHRUB G TREED (circled)		

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	4		ABIBAL >> AME(lanchier) > BETPAPY
4	GRD. LAYER	4		DIELONI > ARITRIF >> 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: ~~MAR080~~ 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	
GEUMRIA				O	
GAULTSP				A	
LINBOR				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 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	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	
ARIBALS		A	A	A	
LONCANA				O	
SORDECO				O	
VIBEDI				O	
DIELONT				O	

SPECIES CODE	LAYER 1	2	3	4	COL.
CYCOEN				A	
CYCANN				A	
CLIBOR				A	
CIRCANA				O	
DRYCAR				O	
TRIBOR				O	
ATHFIL				O	
ARANUD				O	
DRYINT				O	
GYMDRY				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
SITE	G BASIC BEDRK.	G VALLEY SLOPE		G FORB	G MARSH
G OPEN WATER	G CARB. BEDRK.	G TABLELAND		G LICHEN	G SWAMP
G SHALLOW WATER		G ROLL. UPLAND		G BRYOPHYTE	G FEN
G SURFICIAL DEP.		G CLIFF	COVER	G DECIDUOUS	G BOG
G BEDROCK		G TALUS	G OPEN	G CONIFEROUS	G BARREN
		G CREVICE / CAVE	G SHRUB	G MIXED	G MEADOW
		G ALVAR	G TREED		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	3	1	
2	SUB-CANOPY	4	1	
3	UNDERSTOREY	5	1	
4	GRD. LAYER	6	3	Grass > AMARG = SILVULG = TRICAMP

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		MID-AGE		MATURE		OLD GROWTH
			X							

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	
CEUVULG				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

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LEGEND

Breeding Evidence

Max BE: Highest Breeding Evidence recorded
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#Sq: Number of squares with species (Breeding Evidence)
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Point Counts

#PC: Number of Point Counts with species
%PC: Percent of Point Counts with species
Abun: Average number of birds per Point Count
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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
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37	16EU49	Gray Jay	FY	CONF	1	William S. Climie				
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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
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