Brian Wikant
Project Director

tel 416 495 6408
brian.wikant@enbridge.com

Enbridge Gas Distribution
2225 Sheppard Ave. East
North York, Ontario M2J 5C2
Canada

September 30, 2016

VIA RESS, E-MAIL AND COURIER

Ms. Kirsten Walli
Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, 27th Floor
Toronto, ON M4P 1E4

Dear Ms. Walli,

Re: Enbridge Gas Distribution Inc. ("Enbridge") – GTA Project
Ontario Energy Board ("Board") Docket No. EB-2012-0451
Conditions of Approval – Interim Monitoring Report (Redacted)

On January 30, 2014 the Board issued the Decision and Order for the above noted proceeding which included the Conditions of Approval.

As per paragraph 3.1 of the Conditions of Approval, Enbridge is to provide the Board with an Interim Monitoring Report within six months of the in-service date.

Attached please find the redacted Interim Monitoring Report for the GTA Project with the exception of the Ashtonbee and Buttonville Stations, as was explained in our November 6, 2015 letter to the Board.

Please note an unredacted version of the Interim Monitoring Report is being filed with the Board under separate cover. As the complaint log contains personal information, within the meaning of the Freedom of Information and Protection of Privacy Act, R.S.O. 1990, c. F-31, the non-redacted evidence is being filed separately with the Board.

Please contact me if you have any questions.

Yours truly,

[original signed]
Brian Wikant
Project Director, GTA Project

Attach.

cc: Zora Crnojacki (Chair, OPCC)
Pascale Duguay (Ontario Energy Board)
Ceiran Bishop (Ontario Energy Board)
Andrew Mandyam (Enbridge)
Scott Dodd (Enbridge)

GTA Project Interim Monitoring Report

Enbridge Gas Distribution Inc.
GTA Project - Segments A & B Enbridge

Prepared for:
Enbridge Gas Distribution Inc.

Prepared by:
Stantec Consulting Ltd.
300W-675 Cochrane Drive
Markham, Ontario L3R 0B8

Project 160960989
September 30, 2016

Sign-off Sheet

This document entitled GTA Project Interim Monitoring Report was prepared by Stantec Consulting Ltd. for the account of Enbridge Gas Distribution Inc. The material in it reflects Stantec's best judgment in light of the information available to it at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the responsibilities of such third parties. Stantec accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

Prepared by  (signature)

Chris Revak, B.Sc., CISEC
Environmental Planner / Environmental Inspector

Reviewed by  (signature)

Al Leggett, BC, MCIP, RPP
Sr. Principal Environmental Management

Table of Contents

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

Executive Summary

Enbridge Gas Distribution Inc. (EGDI) filed an application with the Ontario Energy Board (OEB) for an order granting leave to construct approximately 49.6 kilometer (km) of 36-inch (914.4 mm) and 42-inch (1067 mm) diameter steel pipelines and associated facilities. The OEB granted EGDI the Leave to Construct for the project along the preferred route which included a requirement for an *Interim Monitoring Report* to be filed to the OEB within six months of the in-service date. This *Interim Monitoring Report* has been prepared in support of the *EB-2012-0451 Decision and Order, Appendix G GTA Project Conditions of Approval* (OEB 2014) and is limited to the current condition of the right-of-way (ROW) to September 15, 2016. Any additional information after September 15, 2016 will be included in the *Final Monitoring Report*. This *Interim Monitoring Report* summarizes the following:

- The monitoring programs conducted in support of the GTA Project;
- Permits that were collected in support of the GTA Project;
- Environmental compliance implementation;
- Regulatory agency input;
- First Nations consultation and monitoring;
- Landowner complaints or issues;
- Local by-law issues and non-compliances;
- The success of mitigation measures;
- Outstanding commitments and monitoring; and
- Any potential residual and cumulative effects as a result of the GTA Project.

There was ongoing consultation with regulatory authorities (Conservation Authorities, Ministry of Natural Resources and Forestry, Region of York, Region of Peel, Local Municipalities, etc.), landowners, local residents and other stakeholders. There were some minor modifications to the proposed centerline of the route to accommodate concerns identified during stakeholder consultation. However, these minor changes occurred within the same corridor that comprised the Environmental Report Study Area and did not involve any new landowners. There were no significant (material) changes or modifications to construction methodology from approved methods identified in the Environmental Report filed with the OEB. EGDI informed the Board that the construction of Jonesville Station and Buttonville station would be delayed and this report excludes these two stations.

Many of the potential environmental effects were avoided by locating the pipeline within previously disturbed utility corridors and by using trenchless technologies (i.e., horizontal directional drill, track bore and Direct Pipe) where possible to limit potential environmental impacts on surface features. Other potential adverse environmental effects were further reduced by implementing appropriate mitigation measures, observing timing restrictions to limit potential interaction during sensitive breeding/spawning periods, and proactively stabilizing and restoring disturbed areas as soon as possible.

Construction activities were carried out with a high level of respect for the environment and the residents located adjacent to the ROW. Appropriate mitigation and monitoring measures were implemented during all phases of the GTA Project to assess and minimize potential impacts. Good communication practices and meetings were key to ensuring full understanding of responsibilities, and the reduction of potential adverse environmental effects. None of the monitoring programs identified any potential long-term effects as a result of the project.

The OEB included conditions in their *Decision and Order* for EGDI to follow with respect to the First Nations. As part of the conditions, EGDI provided Pre-Construction Information Sharing prior to construction and generated monitoring agreements for First Nation participation at all stages of the project. Over the course of pre-construction consultation, and as new concerns arose during construction, each First Nation identified what they preferred to be consulted upon, and how they wanted to be involved. EGDI supported and facilitated their reasonable involvement to the extent practical, following direction provided by government ministries and the OEB to meet the conditions of the *Decision and Order*.

EGDI was transparent with the issues identified during the course of construction and reported issues to the appropriate regulatory authority as required and determined appropriate activities to address each issue.

Currently, the ROW is in a stable state with minimal bare areas that EGDI has subsequently re-seeded. Monitoring will continue in spring 2017 to determine vegetation establishment on the areas seeded in September 2016. Outstanding commitments include:

1. Tree and shrub planting anticipated to be completed by October 15, 2016.
2. Three landowner complaints detailed in Appendix F.
3. On-going monitoring commitments as detailed in Table 9-1.

Provided that all outstanding commitments identified in this report are addressed, no significant residual or cumulative effects on environmental and/or socio-economic features are anticipated as a result of the GTA Project upon completion of the final restoration.

Abbreviations

AA	Archaeological Assessment
APV	Aquatic Protection Value
CA	Conservation Authority
CH	Conservation Halton
CISEC	Certified Inspector of Erosion and Sediment Control
CVC	Credit Valley Conservation
DFO	Department of Fisheries and Oceans
DP	Direct Pipe
EGDI	Enbridge Gas Distribution Inc.
EI	Environmental Inspector
EPP	Environmental Protection Plan
ER	Environmental Report
ESA	Endangered Species Act
ESP	Environmental Screening Program
GTA	Greater Toronto Area
HCCC	Haudenosaunee Confederacy Chiefs Council
HDD	Horizontal Directional Drill
HDI	Haudenosaunee Development Institute
HONI	Hydro-One
HWN	Huron Wendat First Nation
IFR	Inadvertent Fluid Releases
IO	Infrastructure Ontario
IOC	Isolated Open Cut
LTC	Leave to Construct
MOECC	Ministry of the Environment and Climate Change
MNCFN	Mississaugas of the New Credit First Nation
MNRF	Ministry of Natural Resources and Forestry
MTCS	Ministry of Tourism, Culture and Sport
NIOSH	National Institute for Occupational Safety and Health
NPS	Nominal Pipe Size
NTU	Nephelometric Turbidity Units
OEB	Ontario Energy Board
OEL	Occupational Exposure Limit
OV	Organic Vapor
PWQO	Ontario Provincial Water Quality Objectives
PCA	Property Condition Assessment
PCB	Polychlorinated Biphenyls
PTTW	Permit to Take Water
ROW	Right-of-Way

SAC	Spills Action Center
SAR	Species act Risk
SCN	Soybean Cyst Nematode
SNEC	Six Nations Elected Council
Stantec	Stantec Consulting Ltd.
TB	Track-Bore
TPZ	Tree Protection Zone
TRCA	Toronto Region Conservation Authority
TVOC	Total Volatile Organic Compounds
TWS	Temporary Workspace

1.0 INTRODUCTION

1.1 BACKGROUND

Enbridge Gas Distribution Inc. (EGDI) filed an application with the Ontario Energy Board (OEB) under section 90 of the *Ontario Energy Board Act*, 1998, S.O. 1998, c. 15, Schedule B for an order granting leave to construct approximately 49.6 kilometer (km) of 36-inch (914.4 mm) diameter and 42-inch (1067 mm) steel pipelines and associated facilities to upgrade the existing distribution system (the GTA Project). The GTA Project was divided into two distinct and disjointed segments identified as Segment A (42-inch and 36-inch tie-in) and Segment B (36-inch). The OEB assigned the application file number EB-2012-0451 for the GTA Project in 2012.

On January 30, 2014, the OEB granted EGDI the Leave to Construct (LTC) for the GTA Project along the preferred route. Included in the LTC, EGDI was required to complete an *Interim Monitoring Report* to be filed to the OEB within six months of the in-service date. As reported to the OEB on April 13, 2016, the project's in-service date was March 31, 2016, making the filing date for the *Interim Monitoring Report* September 30, 2016. EGDI will file the *Final Monitoring Report* with the OEB by June 30, 2017.

1.2 SCOPE

This *Interim Monitoring Report* has been prepared in support of the *EB-2012-0451 Decision and Order, Appendix G GTA Project Conditions of Approval* (OEB 2014) as described below and is limited to the current conditions of the right-of-way (ROW) to September 15, 2016. Any additional information after September 15, 2016 will be included in the Final Monitoring Report.

EB-2012-0451 Decision and Order, Appendix G GTA Project Conditions of Approval:

3.0 *Monitoring and Reporting Requirements*

3.1 Both during and after construction, EGDI shall monitor the impacts of construction, and shall file four copies of both an interim and a final monitoring report with the Board. The interim monitoring report shall be filed within six months of the in-service date, and the final monitoring report shall be filed within fifteen months of the in-service date. EGDI shall attach a log of all complaints that have been received to the interim and final monitoring reports. The log shall record the times of all complaints received, the substance of each complaint, the actions taken in response, and the reasons underlying such actions.

3.2 The interim monitoring report shall confirm EGDI's adherence to Condition 1.1 and shall include a description of the impacts noted during construction and the actions taken or

to be taken to prevent or mitigate the long-term effects of the impacts of construction. This report shall describe any outstanding concerns identified during construction.

3.3 The final monitoring report shall describe the condition of any rehabilitated land and the effectiveness of any mitigation measures undertaken. The results of the monitoring programs and analysis shall be included and recommendations made as appropriate. Any deficiency in compliance with any of the Conditions of Approval shall be explained.

This report summarizes requirements of *Conditions of Approval 3.1 and 3.2* including:

- The monitoring programs conducted in support of the GTA Project;
- Permits that were collected in support of the GTA Project;
- Environmental compliance implementation;
- Regulatory agency input;
- First Nations consultation and monitoring;
- Landowner complaints or issues;
- Local by-law issues and non-compliances;
- The success of mitigation measures;
- Outstanding commitments and monitoring; and
- Any potential residual and cumulative effects as a result of the GTA Project.

Included in the report are outstanding commitments that require monitoring or resolution and will be summarized in the *Final Monitoring Report*. Specifically, this report has been compiled to address the requirements identified in Section 6.2.2 Monitoring Reports of the *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario - 6th Edition* (OEB 2011).

2.0 THE GTA PROJECT

2.1 PROJECT DESCRIPTION

2.1.1 Route

The GTA Project route consisted of two major segments of nominal pipe size (NPS) 42 (Segment A) and NPS 36 (Segment B and Segment A tie-in) of steel pipelines totaling approximately 49.6 km in length. See Figures 1 and 2 in Appendix A for the location of the GTA Project. The pipelines were integrated into the existing EGDI distribution network by the construction of new associated facilities, modifications to existing facilities, as well as tie-ins to existing pipeline sections.

Segment A

Segment A was comprised of a 26.3 km long route of NPS 42 pipe, which started at the new Parkway West location, south of Derry Road and west of Highway 407 in the Town of Milton. The pipeline continued north and east to the existing EGDI Albion Station southwest of Highway 427 and Albion Road in the City of Toronto. Segment A also included approximately 0.4 km of NPS 36 pipeline to connect the new Parkway West Gate Station to the existing NPS 36 Parkway North pipeline.

Segment B

Segment B was comprised of a 22.9 km route of NPS 36 pipeline in the City of Vaughan, the City of Markham, and the City of Toronto. This segment included approximately15.3 km of pipe, which started at the east side of Keele Street and continued east to tie into a new valve located just east of Rodick Road and south of Hwy. 407. This section of Segment B generally followed a designated utility corridor south of Hwy. 407, with the exception of some private land between Yonge Street and Langstaff Road.

Segment B then travelled south for approximately 7.6 km through the Buttonville utility corridor, terminating at a connection to the NPS 36 Portlands Energy Centre reinforcement pipeline immediately north of Sheppard Avenue in the City of Toronto. This section of Segment B twins an existing EGDI 30-inch diameter line and ROW. Between Sheppard Ave. and Steeles Ave., the utility corridor functions as a parkland area. North of Steeles Ave., the corridor is bounded by commercial and industrial properties.

2.1.2 Facilities

In addition to Segments A and B of the pipeline and the associated mainline valves, the following facilities were constructed or expanded as part of the GTA Project in 2015/2016:

Segment A

- Parkway West Gate Station: New facility
- Parkway Cons Bypass Regulation Facility: New facility
- Albion Station: Expansion of existing facility

Segment B

- Keele/CNR Station: Modifications to existing facility

On November 6, 2015, EGDI informed the Board that the construction of Jonesville Station and Buttonville Station would be delayed. The relocation of the Jonesville Station to the new Ashtonbee Road site was approved by the Board's Decision and Order EB-2016-0034. In this report, the GTA Project denotes the project excluding these two stations.

2.1.3 Schedule

Construction of the pipeline commenced in January 2015, and final energization was completed on March 31, 2016. Final clean-up and restoration occurred in the spring of 2016, finishing on June 29, 2016 when the ROW was stabilized for the growing season. Some planting was postponed until late summer/fall, 2016 in response to dry weather conditions. Prior to, and during the course of construction, the permitting process identified various timing restrictions for construction for wildlife and fish at multiple locations to avoid environmental impacts during breeding periods. EGDI adhered to all construction timing restrictions or obtained approval from the appropriate regulatory agency prior to working beyond the timeframe allowed in these restrictions.

2.2 MODIFICATIONS TO THE GTA PROJECT

During both the planning and the construction stages of the GTA Project, there was ongoing consultation with regulatory authorities (Conservation Authorities, Ministry of Natural Resources and Forestry, Region of York, Region of Peel, Local Municipalities, etc.), landowners, local residents and other stakeholders. As a result, there were some minor modifications to the proposed centerline of the route to accommodate their concerns. See Figure A-1 and A-2 in Appendix A for the preferred location of the pipeline alignment as submitted in the Environmental Report (ER; Dillon 2012) as well as the final as-built location of both segments of the GTA Project. The minor alignment changes were all within the same corridor that comprised the ER Study Area and involved no additional landowners.

There were no significant (material) changes or modifications to construction methodology from approved methods identified in the ER.

2.3 ENVIRONMENTAL PERMITS

EGDI conducted regulatory consultations with all levels of municipal and provincial regulators to determine the environmental permits and approvals required for each segment and all facility work for the GTA Project. For a list of environmental permits obtained for the GTA Project, see Appendix B.

2.4 ENVIRONMENTAL PROTECTION PLAN

A comprehensive Environmental Protection Plan (EPP; Stantec 2015) was developed for the GTA Project and was distributed to supervisory project personnel including EGDI Site Inspectors, Environmental Inspectors, Contractor Environmental Staff, etc. The EPP included both general and site-specific environmental protection and mitigation measures based on:

- past project experience;
- EGDI *Pipelines Inc. Environmental Guidelines for Construction* (EGDI, 2012);
- EGDI *Construction and Maintenance Manual* (2012);
- review of *2012 GTA Project Environmental Report* (Dillon 2012);
- results of biophysical field programs conducted including aquatic and terrestrial surveys;
- consultation with Conservation Halton (CH), Credit Valley Conservation (CVC) and Toronto and Region Conservation Authority (TRCA); and
- a consolidation of environmental regulatory and industry developed mitigation strategies and best management practices.

Environmental Alignment Sheets included in the *EPP* provided an overview of the entire pipeline on an airphoto basemap illustrating the location of key features and providing important information such as regulated areas, construction timing windows, vegetation clearing windows, feature crossing method, species at risk locations, and archaeological sites.

GTA Project staff used the EPP in conjunction with the environmental permits for vegetation, wildlife, water management, watercourse crossings, SARs, air and noise. If there were any variances between the EPP and permits, EGDI environmental staff flagged the variances and reviewed them with construction staff prior to initiation of construction at the site. Whenever there was overlap between the commitments in the *Environmental Report*, *EPP*, *Permits*, or other project documents, the most stringent commitments were adopted.

3.0 MONITORING PROGRAMS

3.1 CONSTRUCTION MONITORING PROGRAMS

EGDI implemented several monitoring programs to monitor potential effects during construction of the GTA Project. Some of the monitoring programs were required by permit conditions from regulatory authorities, and others were carried out as due diligence measures. This section contains a list of the monitoring programs implemented during construction of the GTA Project along with a general discussion of the results of each program.

3.1.1 Environmental Inspection Program

EGDI contracted Stantec Consulting Ltd. (Stantec) to provide Environmental Inspectors (EI) for the GTA Project. Stantec provided trained EIs that were Certified Inspectors of Sediment and Erosion Control (CISEC). EIs regularly inspected sites during construction and would remain on-site fulltime during sensitive activities such as isolated open-cuts, bridge installations, and stream and bank restoration. The EIs would also conduct additional inspection during and after major weather events. Following restoration, the EIs conducted follow-up inspections to observe and report on the post-construction conditions of the ROW. They conducted these inspections following rain events greater than 5 mm to monitor for erosion, focusing on watercourse crossings and areas with steep slopes. The EIs also conducted additional inspections in summer 2016 to monitor vegetation establishment along the ROW.

The EI's main responsibilities were:

- that EGDI met environmental commitments, undertakings and conditions of environmental permits and approvals;
- mitigation and protection measures were implemented and maintained;
- that other workers and inspectors were aware of the environmental sensitivities and permit requirements; and
- that all work was completed in accordance with applicable environmental regulations and EGDI policies, procedures and specifications.

If the EIs observed any non-compliances during the course of construction, they worked with EGDI personnel to ensure that the appropriate regulators were notified and that potential risks to the environment were addressed in a timely manner.

EGDI Inspectors (i.e., welding, pipeline, etc.) were at each site providing fulltime inspection to assist in confirming that construction staff adhered to environmental commitments during construction activities. EGDI provided their inspectors with environmental on-boarding training regarding environmental issues for GTA Project, including orientation to the *EPP* along with instructions on the role of the EIs and how to contact them.

3.1.2 Water Well Monitoring Program

EGDI identified two active water wells prior to construction that were located within 100 m of the preferred route. During stakeholder consultation, EGDI contacted the well owners to offer participation in a water well monitoring program during construction to identify any potential GTA Project effects. Neither owner opted to participate in the program and, as a result, EGDI did not conduct a water well monitoring program.

3.1.3 Groundwater and Surface Water Monitoring

Prior to construction commencing, EGDI anticipated that several locations along the GTA Project would require groundwater dewatering and diversion/taking of surface water greater than 50,000 L/day resulting in the need for a Permit to Take Water (PTTW) from the Ministry of the Environment and Climate Change (MOECC). For the purposes of the permit, the GTA Project was divided into four catchment areas with each of the four areas requiring a separate application to the MOECC for a PTTW. The MOECC issued the permits in December 2014 which included the requirement for EGDI to conduct the following monitoring during construction:

- turbidity monitoring was required for water migrating into a surface water feature (i.e., waterbody, watercourse or wetland) or at any surface water diversion;
- chloride concentration monitoring if groundwater discharge was migrating into to a surface water feature; and
- monitoring groundwater levels during construction dewatering in coldwater watercourses to determine if the dewatering activities impacted groundwater contribution to the watercourse.

The EIs assessed each proposed dewatering discharge location prior to commencing dewatering to determine the potential for discharged water to enter a surface water feature (i.e., watercourse or wetland). If there was uncertainty that dewatering discharged to the environment would enter a surface water feature, the EIs would monitor the direction of dewatering discharge flow to determine if the water entered a local surface water feature. Turbidity and chloride concentration monitoring was initiated if dewatering discharge entered a surface water feature. Qualified Water Monitoring Technicians familiar with the PTTW conditions completed the turbidity monitoring to ensure compliance with conditions of the permits.

3.1.3.1 Turbidity

The PTTW Groundwater and Surface Water Monitoring Program monitored nineteen groundwater dewatering discharge sites and thirteen surface water diversions for turbidity. With the exception of one location, EGDI either mitigated turbidity exceedances during both groundwater and surface water dewatering activities to within permitted values, or dewatering activities were temporarily halted to revise mitigation measures to ensure compliance with the PTTW criteria.

For surface water diversions, turbidity was monitored upstream and downstream of the diversion to assess that the water returned to the surface water feature was similar to the water quality

upstream of the diversion. Three of the surface water diversion monitoring sites (Spring Creek, Mimico Creek Tributary 3 and Etobicoke Creek Tributary 3) were observed to have turbidity levels that did not meet the MOECC requirements. In each case, additional mitigation measures were established to reduce turbidity. The surface water turbidity exceedances occurred over a one to three day period, after which downstream turbidity measurements were observed to return to within the permit conditions.

Thirteen groundwater dewatering discharge sites were observed to have turbidity exceedances above permit conditions. Nine of the sites had single one-day exceedances during multi-day discharges. Additional mitigation measures were initiated at each of the single event sites after the exceedances were noted and were successful in reducing turbidity to below MOECC targets.

Four groundwater dewatering discharge sites had multi-day turbidity exceedances. Mitigation measures were augmented daily, including moving the dewatering discharge location where possible, to bring turbidity levels to within permit conditions. In one case, excessive algal growth within the roadside ditch receiving the dewatering discharge appeared to cause the increased turbidity values.

The Churchville-Norval Wetland Complex isolated open-cut required discharge into the wetland from several locations during construction and monitoring indicated multi-day turbidity exceedances. Multiple dewatering basins were constructed and relocated during construction to reduce turbidity from the groundwater discharge. The basins and other implemented measures provided incremental improvements, but turbidity values were elevated above the permitted range throughout the dewatering period. However, due to the short-term and intermittent nature of the turbidity exceedances within the Churchville-Norval Wetland Complex, no long-term environmental impacts are anticipated.

3.1.3.2 Chloride

Chloride monitoring consisted of measuring chloride concentrations at a minimum frequency of twice per day within receiving surface water features to meet the permit criteria. The monitoring program included measuring chloride concentrations upstream and downstream of the discharge locations to identify typical background concentrations, monitoring any impacts to the receiving surface water features and determine if chloride concentrations exceeded MOECC Aquatic Protection Value (APV) of 180 mg/L. In some cases, this was not possible due to the absence of upstream channelized flow.

Chloride monitoring consistently observed groundwater discharge concentrations exceeding permit criteria. Within watercourses that had upstream and downstream chloride monitoring, only the Credit River crossing had occurrences where downstream chloride concentrations exceeded 180 mg/L when upstream concentrations did not.

All other groundwater dewatering discharge sites migrating to a watercourse either had chloride concentrations that exceeded 180 mg/L at both the upstream and downstream sampling locations; indicating that the chloride exceedances were not a result of GTA Project activities; or had both monitoring locations below the target value.

Background concentrations measured in wetlands (where possible) and surface water features with no upstream monitoring sites consistently exceeded 180 mg/L. The dewatering discharge chloride loading at each of the sites is not expected to have long-term residual impacts on the receiving surface water features.

3.1.3.3 Surface Water – Groundwater Interaction

Surface water–groundwater interaction monitoring for coldwater thermal regime watercourse occurred at German Mills Creek in Segment B using in-stream drivepoint piezometers and stilling wells. Within each piezometer and stilling well, continuously operating temperature and pressure transducers were installed to monitor groundwater and surface water elevations, and temperature. Surface water flow measurements were taken on a weekly interval. Based on data collected during monitoring, no changes to the surface water-groundwater interaction were identified.

3.1.4 Agricultural

EGDI conducted an agricultural land assessment in the early stages of the planning process by conducting a physical assessment of the soils prior to construction as well as consulting with tenant farmers for each agricultural property encountered along the planned route.

EGDI noted the following during consultation with the tenants:

- tenant access during construction;
- the location of potential additional access routes;
- a request to do the ploughing for archaeological studies;
- concern about stones left on the ROW;
- mixing of soil layers during stripping; and
- rehabilitation and compaction of soil following construction.

Soil horizon colours, textural changes between horizons and topsoil depths were also measured and logged prior to construction.

A soybean cyst nematode (SCN) sampling program and laboratory analyses of the samples was also conducted to identify fields which are susceptible to SCN. Results of the SCN study indicated that no soil samples positively identified SCN. During construction there were no significant changes to the ROW that warranted further sampling.

Qualified soil scientists (i.e., Professional Agrologists and CISEC certified inspectors) were assigned to the GTA Project to monitor soil conditions during construction. Topsoil inspection occurred

during stripping, de-compaction and replacement activities. The inspection included assessing soils for depth, compaction, and stoniness both prior to stripping and after restoration.

Results of monitoring following restoration in 2016 concluded that depth, compaction, and stoniness in agricultural soils meet pre-construction conditions.

3.1.5 Arborist and Tree Protection Zones

Within the City of Toronto, qualified arborists were on-site prior to construction to assess the conditions of the trees subject to City of Toronto Tree Protection by-laws and identify the boundaries of Tree Protection Zones (TPZ). The TPZs were established by an International Society of Arboriculture certified arborist, surveyed and added to construction drawings, which were subsequently approved by City of Toronto staff. TPZs were established using temporary fencing, wooden stakes with flagging tape and/or wooden mats where traffic would be required when permitted (see Photos 1 and 2 in Appendix D). EIs monitored the TPZs to identify if any were inadvertently moved or altered during construction. Where TPZs were altered due to construction activities, they were reinstated as soon as possible with notification to the City and landowner. One TPZ was altered during construction (See Section 7.1 for further discussion).

3.1.6 Property Condition Assessment

Property Condition Assessments (PCAs) were completed for eleven select properties along the route. EGDI identified locations for PCAs based on either:

a) Concerns raised by occupants of houses adjacent to the ROW; or
b) Representative locations in the nearest row of houses, in anticipation of construction activities that could cause increased levels of vibration (i.e., use of a boring installation method).

Initial PCAs were carried out to document conditions of the site (where visible from grade) and the interior finishes of the buildings. On completion of the planned construction, follow-up PCAs were carried out to note any potential changes to the site and building conditions.

During the initial PCA, the assessors identified and documented deficiencies/deterioration with the building structure, building envelope and site features prior to the planned construction of the pipeline to the extent possible. During the follow-up PCA, the assessors checked the observed deficiencies for change or progress as a result of the construction activities. The follow-up PCA phase was performed after construction activities had ceased, and prior to restoration activities (which did not involve heavy equipment or major earthworks).

The initial and follow-up PCAs generally followed the procedures outlined in ASTM Standard E2018-15.

Follow-up PCAs were completed on all buildings after the construction activity had ceased. One exception occurred where repeated attempts were made by EGDI to the homeowner who was not open to the follow-up PCA site visit. During the follow-up PCAs, no significant changes were observed to the condition of the previously assessed properties and building systems with the exception of two properties:

1. At one site, the initial PCA was only undertaken after most of the construction heavy drilling/ramming had been completed. The water infiltration in the basement, noted at the time of initial PCA, according to the homeowner, started to occur only after the drilling activities had taken place. Also during the initial PCA, several foundation and mortar joint cracks, occurring most frequently (but not exclusively) on the west elevation facing the construction activity, were observed. During the follow up PCA no deficiencies were observed, as the homeowner had all foundation cracks repaired between the initial and follow-up PCAs.
2. During a follow-up PCA, the wood property perimeter fence near the swimming pool was leaning. Stantec assumed that the observed lean progressed due to the age and possible poor construction of the wood fence.

Because it could not be proven that the GTA Project was not the cause of these issues, EGDI compensated both homeowners for the damages and there are no outstanding concerns.

3.1.7 Vibration

EGDI conducted vibration monitoring at sensitive locations where the ROW was in close proximity to residential properties. Unattended vibration monitors were deployed at these locations with data collected during routine site visits. When required, some measurements were conducted in real-time, providing immediate feedback as construction work was taking place.

Measurements were compared against City of Toronto construction vibration limits in its By-law No. 514-2008. Vibration levels were monitored at twenty-two locations during a variety of construction activities, mostly related to sheet piling installation. Only one measurement interval on October 23, 2015 was detected above the City of Toronto vibration limit during the course of the monitoring program. The exceedance of the bylaw vibration standard only occurred for a fraction of a second based on analysis of the data and was attributed to localized disruption of the sensor.

3.1.8 Archaeological Monitoring of Known Archeology Sites

Archaeological site monitoring was completed during the construction phase for five known archaeological sites which could not be avoided by re-routing including: Pengilley, Dixie Homestead, Sopher Historical Homestead, Reaman and the Goin Historical Homestead. Portions of the sites that were to be disturbed by construction were cleared prior to construction by licensed archeologists and reported to the Ministry of Tourism, Culture and Sport (MTCS). Portions of these sites which were not disturbed by construction were delineated with protective fencing, and monitored during construction activities to ensure no encroachment into these areas took place. Stage 4 Avoidance and Protection Archaeological Reports were prepared for each site

and submitted to the MTCS for review and inclusion in the *Ontario Public Register of Archaeological Reports*.

Monitoring was completed on a routine schedule whenever work was proceeding within the vicinity of a site. The monitoring was conducted by the EIs with support from a qualified archaeologist, and accompanied by First Nations monitors (see Section 5.0). No impacts to the protected areas of the archaeological sites were noted during any of the monitoring activities.

4.0 MITIGATION MEASURES AND COMPLIANCE

The following section outlines the primary mitigation measures implemented during construction to reduce the environmental and socioeconomic effects from the GTA Project and identify any deviations from the proposed mitigation measures initially identified in the *ER* for the GTA Project.

4.1 PIPELINE AND FACILITIES CONSTRUCTION

Construction activities were carried out with a high level of respect for the environment and the residents located adjacent to the ROW. Appropriate mitigation and monitoring measures were implemented during all phases of the GTA Project to assess and minimize potential impacts. Good communication practices and regularly scheduled meetings during construction between EGDI supervisory and inspection staff, the Contractor, EI(s), landowners and agencies, and/or their representatives, was key to ensuring full understanding of responsibilities, and the reduction of potential adverse environmental effects.

Many of the potential environmental effects were avoided by locating the pipeline within previously disturbed utility corridors and by using trenchless technologies [i.e., Horizontal directional drill (HDD), track-bore and Direct Pipe] where possible to limit impacts on surface features. Other potential adverse environmental effects were further reduced by implementing appropriate mitigation measures, observing timing restrictions to limit potential interaction during sensitive breeding/spawning periods, and proactively reclaiming disturbed areas as soon as possible. Once installation was completed, each site was re-graded as soon as practical, had appropriate erosion and sediment control (ESC) measures implemented as needed, and seeded (restored) during the appropriate window. Restoration is nearly completed and all sites have been stabilized prior to fall 2016. Based on the latest site visits, preliminary restoration results have been effective. These sites will be visited in 2017 as part of the final monitoring program.

4.1.1 Horizontal Directional Drill, Direct Pipe and Track-Bore Crossings

The primary concerns regarding the potential effects of pipeline construction on fish and fish habitat are species viability and potential impacts during spawning/nursery activities. Both concerns were significantly reduced by engaging in trenchless crossing techniques (HDD, Direct Pipe or track-bore).

Potential effects during track-bores included grading and excavation within floodplains and erosion when track-bore pits were located in close proximity to the watercourse. These effects were mitigated by off-setting the track-bore entry and exit pits from the bed and banks of the watercourse and limiting off-site transfer of sediment by establishing appropriate ESC measures prior to excavation and construction. There was no sedimentation into any watercourses associated with any track-bores utilized to cross waterbodies.

Potential effects during HDD and Direct Pipe crossings include siltation and sedimentation during a surface release of bentonite mud. Extensive mitigation measures were taken to minimize the potential for sedimentation and contamination of the watercourse through an inadvertent fluid release (IFR) of bentonite bore mixture within the bed or banks of the watercourse. The potential release of bentonite drilling mud was mitigated through the installation of protection measures prior to the onset of drilling and having the appropriate spill response materials (e.g., silt fence, straw bales, vacuum trucks, etc.) readily available at all times during drilling. EGDI reported all releases to the MOECC's Spills Action Centre (SAC) immediately after discovery (see Appendix E).

To prevent potential hazardous petroleum products or other deleterious substances from entering a watercourse, these materials were stored at a distance greater than 30 m from the watercourses where possible. Temporary ESC measures (e.g., silt fencing, straw bales) were installed prior to drilling and maintained until all work near the watercourses (including restoration) had been completed.

During HDDs and Direct Pipe installations, the Contractor continually monitored mud volumes and pressure conditions in the borehole and carried out regular ground surface inspections along and within 30 m of the drill path. Annular pressures at the drill head and fluid returns to the rig were continually monitored by the Contractor. The Contractor ensured there was one monitor continually monitoring the drill path for surface releases of drilling mud when annular pressures at the drill head and drilling fluid returns to the rig remained normal. If annular pressures changed and/or there were noted fluid losses, on-foot monitoring increased to up to five personnel around sensitive features to ensure there was an immediate and early response to any potential IFR. If an IFR was detected, drilling immediately stopped to allow the Contractor to contain and clean up the release, to prevent migration into sensitive areas, and to report the IFR to the appropriate regulatory agencies. Drilling did not recommence until the IFR was contained and controlled.

4.1.1.1 Inadvertent Fluid Release Emergency Response

Prior to drilling, emergency response materials and heavy equipment as described in the *ER* and other documents filed with the OEB were maintained onsite near the subject watercourses and their tributaries in an accessible location. Once discovery of an IFR occurred outside of the isolated entrance and exit locations, any drilling was stopped, the IFR was isolated from the watercourse or migration paths to the watercourse with the installation of silt fencing/straw bales/sand bags dams (see Photos 4 and 5 in Appendix D). Mud was collected and returned back to the appropriate location. Any IFR which occurred outside of the sediment fenced entrance or exit locations were reported to the SAC and other appropriate agencies immediately including the local CA and the MNRF, where appropriate.

There were a total of seventeen IFRs during HDDs and Direct Pipe installations across the GTA Project. The Contractor was quick to address the releases with only one minor release entering a

watercourse which occurred at the Credit River during the Direct Pipe installation. No residual significant impacts were observed or were anticipated as a result of the release.

4.1.2 Migratory Bird Nesting Sweeps

To avoid impacts to migratory birds which could potentially be nesting on the ROW, vegetation was disturbed (mowed) prior to the nesting period (April 1 to August 31) and kept short during the nesting period to discourage the nesting of migratory birds on the ROW, when possible. Where construction was required to start within the migratory bird nesting period, nest surveys/sweeps were completed by a qualified biologist prior to any vegetation clearing activities using protocols set forth in the *Draft Migratory Birds Convention Act: A Best Management Practice for Pipelines* (CEPA and Stantec 2013). According to the protocols, if construction did not commence within 7 days of the initial nest sweep, a qualified biologist conducted additional surveys/sweeps.

If an active nest was observed within the ROW during surveys/sweeps, an appropriate buffer was erected around the nest and was monitored and maintained until the fledglings left the nest and the nest was confirmed to be inactive by a qualified biologist.

4.1.3 Species at Risk

The *ER* identified seven Endangered or Threatened species at risk (SAR) which were either observed or could potentially be found within the Study Area for the GTA Project. Two additional species were subsequently listed on the *Endangered Species Act (ESA)* after the 2012 filing. The following is a list of the potential/observed species:

- Barn Swallow (Observed)
- Bobolink (Observed)
- Eastern Meadowlark (Observed)
- Redside Dace (Observed)
- Blanding's Turtle (Potential)
- Chimney Swift (Potential)
- Butternut (Potential)
- Northern Myotis (Potential)
- Little Brown Myotis (Potential)

Targeted surveys were conducted between 2011 and 2014 for all nine SARs listed above. EGDI shared the results of the surveys and consulted with the MNRF to determine if permits were required for the above listed species. The MNRF indicated that ESA permits would only be required for crossing two Redside Dace watercourses (Fletchers Creek and the East Don River) with a Letter of Advice provided for the HDD crossing of Levi Creek (Redside Dace). No permits or approvals were required for Barn Swallows, Bobolink, Eastern meadowlark, Blandings Turtle, Chimney Swifts, Butternut, or Little Brown Myotis and Northern Myotis.

4.1.3.1 Barn Swallow

Surveys conducted in support of the ER did not identify any Barn Swallow (Hirundo rustica) nesting locations but indicated that foraging habitat was present along the ROW. However, during construction a Barn Swallow colony was identified within an old farm structure West of Meadowvale Rd. The old farm structure was not directly affected during construction and EGDI minimized any potential sensory disturbances by limiting work in the vicinity of the colony. During construction, the colony was monitored and there were no direct impacts to the colony or the farm structure observed during the construction phase of the GTA Project.

4.1.3.2 Eastern Meadowlark and Bobolink

The *ER* identified confirmed nesting habitat of the Bobolink (*Dolichonyx oryzivorus*) and Eastern Meadowlark (*Sturnella magna*) in various sections in Segment B of the GTA Project. In consultation with the MNRF, no ESA permit was required for the disturbance to the nesting habitat provided that EGDI cleared (mowed) all vegetation within 30 m of the ROW prior to the breeding window to discourage all nesting of Bobolink and the Eastern Meadowlark within or adjacent to the disturbed areas. As required, EGDI mowed all confirmed nesting areas along with other grassland habitats that may support these two species prior to April 1, 2015 and continued to mow as appropriate ensuring that vegetation height did not exceed 30 cm.

In order maintain conformance with the *Ontario Recovery Strategy* (McCracken et. al., 2013) for the Bobolink and Eastern Meadowlark, any disturbed areas of the ROW where habitat for Bobolink and Eastern Meadowlark were previously observed were seeded utilizing an appropriate mix of grasses and legumes/forbs (alfalfa and clover) to create a naturalized breeding habitat following site restoration. Some of these areas required disturbance during final cleanup to repair subsidence over the ditch and as a result, the areas were reseeded in June 2016. Monitoring will continue in the reseeded areas in 2017 to confirm if the appropriate breeding habitat has returned.

4.1.3.3 Redside Dace

There were three watercourses regulated as Redside Dace (*Clinostomus elongatus*) habitat crossed along the preferred route of the GTA Project including Levi Creek, Fletcher's Creek and the East Don River. All Redside Dace watercourses were crossed utilizing trenchless technologies (HDD or track-bore) as per the MNR's permit/*Letter of Advice* conditions. Sites were all setup as per permit conditions.

On one occasion, an IFR occurred within the regulated habitat of Redside Dace in the East Don River (within the floodplain). Measures were installed to control mud flow and contained the release on land and, as a result, drilling mud did not enter the river channel (see Photos 4 and 5 in Appendix D). Once drilling operations had ceased, the area was restored using a native seed mixture. No direct impacts to Redside Dace in any of the three identified watercourses are anticipated as a result of the construction and installation of the GTA Project.

4.1.4 Watercourse Crossings

Throughout the permitting and construction stages of the GTA Project, EGDI remained in close consultation with CAs and the MNRF to identify sensitive watercourse and design crossing strategies/procedures to limit the overall impact of construction upon the watercourses. Discussions revolved around the following major topics: SARs, crossing methodology, proposed schedules for each crossing, flood contingency measures, fish rescues, and restoration requirements. All watercourses were crossed as per the permits granted by the appropriate regulatory authority.

Potential impacts to watercourses were reduced by isolating sensitive and SAR habitats along the route, crossing utilizing trenchless technologies where appropriate, and by observing best practices and permit requirements during isolated open cut crossings.

All watercourses were either crossed using the method proposed in the ER, or a less-destructive method. See Appendix C for a list of all the crossing locations, the proposed and actual crossing methodologies, and the current status of the restoration/stabilization.

Mitigation measures implemented during the IOCs were successful in restoring the watercourses to pre-existing and stabilized conditions (See Photos 7-15 in Appendix D). However, there were two (2) noted sediment releases into watercourses during active IOCs (Spring Creek and German Mills Creek). These were due to the over-topping of upstream diversion dams, attributed to precipitation events and the resulting elevated water levels (see Photos 16 and 17 in Appendix D). Both releases were monitored for turbidity and were short-term (within 24 hrs.). As per permit conditions, both sediment releases were reported to the local CAs once the releases were observed. Based on the monitoring that was completed, the over-topping of the diversion dams were not anticipated to result in any long-term impacts on the watercourse or the fisheries resources.

The restoration of the watercourses for the IOCs were typically completed within 24 to 72 hrs following initiation of the IOC. Banks were stabilized using techniques outlined in the CA permits, and were routinely monitored during and after significant storm events to ensure the banks and overall sites remained stable. Long term monitoring is planned and will assess any potential in-stream issues such as nick points, scour, channel down-cutting, etc. until the watercourse crossings have been fully vegetated and stabilized.

4.1.4.1 Etobicoke Creek Top of Bank Encroachment

During a site visit on May 5, 2015 between the TRCA, EGDI and the EI, it was observed that the grading for the northeastern bore pit and bridge footing had encroached closer to the top of bank (up to 2 m away) and that topsoil and spoil piles were located too close to the channel than what was approved by the TRCA. As a result, active erosion of the banks was noted along the channel. It was agreed that since topsoil and spoil piles were stored above the regulatory boundaries as indicated on the approved drawings, they did not need to be moved, but requested that EGDI install additional sediment controls (silt fencing) around the piles.

A geotechnical engineer conducted a follow-up assessment, and determined that the erosion was surficial and did not appear to be impacting the stability of the slope. Recommended remedial measures included: installing sediment fencing along the corrected work area boundaries, placing erosion control blankets in disturbed areas and adding riprap to the eroding bank to prevent further erosion (see Photos 28 and 29 in Appendix D). The measures were approved by the TRCA and implemented on May 9, 2015.

Final bank restoration occurred on January 25, 2016 and was assessed in spring, 2016 (see Photo 30 in Appendix D). As of September 15, 2016, the restored area remains stable with approximately 90% growth of the dogwood and willow twigs, and seed approximately 50% germinated (see Photo 31 in Appendix D).

4.1.4.2 Fletcher's Creek Mowing within Regulated Redside Dace Habitat

On July 10, 2015, an operator inadvertently mowed the width of the ROW up to the top of bank of Fletchers Creek and within the Regulated Redside Dace Habitat. The vegetation clearing within the Redside Dace Regulation Area was in violation of MNRF permit #AU-C-010-14 and was immediately reported to the MNRF via email with a proposed mitigation strategy. EGDI implemented the mitigation measures which included staking to be clearly visible (i.e., two-high in tall vegetation) with additional ribbon and signage and immediately setup the double-row sediment barrier as per the permit. A revised communication protocol was also established when assigned tasks changed at the last minute to avoid further issues of vegetation clearing within Regulated Redside Dace Habitat and other Regulated Areas (see Photo 32 in Appendix D).

No long-term impacts occurred as result of the incident. The area was able to grow back after the mowing. Insect production in the area is not anticipated to have been reduced due to the limited area of disturbance. As of September 15, 2016, vegetation density is at similar levels to pre-disturbance conditions.

4.1.4.3 Eighth Line Culvert Replacement

EGDI utilized an existing HONI access road to access the ROW for the Hwy. 407 crossing, east of 8th Line in the Town of Milton (see Photo 33 in Appendix D). A damaged (crushed) 8-inch culvert was noted along the HONI access road at the 16 Mile Creek Tributary. The contractor and EGDI replaced the culvert in agreement with the landowner (see Photo 34 in Appendix D). The replacement was a larger culvert (12-inch) with appropriate environmental protection measures implemented. Since the replacement culvert was larger in size than the crushed culvert and occurred when the watercourse was dry, significant environmental impacts to the watercourse are not anticipated.

On October 21, 2015, while investigating an issue unrelated to the GTA Project, a Conservation Halton (CH) Regulations Officer identified the culvert, which had been replaced along a HONI road, as a violation under *O. Reg. 162/06 (Conservation Authorities Act, R.S.O. 1990, c. C. 27)*. The Regulations Officer indicated that no further work was to be completed on the culvert or

that an application for a permit is filed until after a Notice of Violation had been issued. As of September 15, 2016, no Notice of Violation has been received from CH. If a Notice of Violation is issued, EGDI will update in the Final Monitoring Report.

4.1.5 Wetland Crossings

All wetlands were crossed by IOC methodology. Within wetlands along the ROW, only the trench lines were disturbed (stripped), and all other workspace was matted and underlain by geotextile to minimize impacts to wetland. Any water removed from the trench in the wetlands was placed back into the wetland to prevent draining, and monitored as per the PTTW requirements (see Section 3.1.3).

Restoration of the wetlands included backfilling (subsoil then topsoil) and seeding any disturbed areas with an appropriate native seed mix.

4.1.5.1 Great Gulf Drive Wetland Encroachment

EGDI completed the Great Gulf Drive crossing by means of slip-bore located directly adjacent to a regulated wetland on March 3, 2015. During construction of the crossing, the bore pit on the east of Great Gulf Drive encroached within 5 m of the buffer for the wetland prior to receiving permits. EGDI immediately notified the TRCA of the issue. Once EGDI received permits under *O. Reg. 166/06 (1990, Conservation Authorities Act)* from the TRCA, the wetland was open-cut and the encroached area was fully excavated.

4.1.6 Archaeology

4.1.6.1 Pre-Construction Studies

Prior to construction and in consultation with the MTCS and First Nations (see Section 5.0 First Nations Consultation), a Stage 1 archaeological assessment (AA) was completed for the full length of the GTA Project. The Stage 1 AA included a review of past archaeological assessments which had been carried out within the study area and identified areas where Stage 2 AAs were necessary to meet regulatory requirements under the Ontario Heritage Act. Stage 2 AAs were completed along the ROW prior to construction in areas not previously assessed to identify potential areas where Stage 3 and/or Stage 4 AA were required. During the initial Stage 1 and 2 AAs, a total of six archaeological sites were identified within or adjacent to the original proposed ROW, which included:

- Pengilley Site (AjGw-66)
- Gohn Site (AlGu-486)
- River Site (AjGw-68)
- Moore Site (AkGw-477)
- Soper Site (AkGw-476)
- Reaman Site (AkGu-16)

The River Site was completely avoided by re-alignments of the planned centerline of the pipe and associated ROW.

Archaeological sites which could not be avoided (i.e., Pengilley, Gohn, Moore, Soper, and Reaman) were cleared within the ROW by Stage 3 and/or Stage 4 archeological assessments and mitigations prior to construction. Portions of these sites which could be avoided by going around or under them were protected by a 20 metre "no-go" buffer zone and a 50 metre construction monitoring zone. The zones were delineated with temporary protective fencing and subjected to regular monitoring by a licensed archaeologist. These avoidance and protection measures were reported to the MCTS in five respective Stage 4 Avoidance and Protection reports.

The Stage 4 AA of the Pengilley site resulted in the discovery of human remains associated with a pre-Columbian Huron-Wendat First Nation (HWN) village. The remains were interred in place, in consultation with the MCTS, the Ontario Registrar of Cemeteries and the HWN. The burial location was avoided by a minor re-route of the centerline of the pipe, and protected with temporary fencing and signage during construction.

4.1.6.2 During Construction

During construction, one Stage 1 AA and twelve additional Stage 2 AAs were completed for new temporary workspaces required adjacent to the ROW. All 12 Stage 2 AAs which were completed during the construction phase of the GTA Project included the notification to the MTCS and the representation and participation from potentially affected First Nations. No additional archaeological resources were identified during eleven of the Stage 2 AAs.

One location identified artifacts after it has been stripped of topsoil prior to a Stage 2 AA being completed. Following consultation with the MTCS and affected First Nations regarding the incident, a modified site-specific methodology for a Stage 2 AA was agreed upon. During the modified Stage 2 AA, 58 Euro-Canadian artifacts were collected during the Stage 2 AA. It was determined that the artifacts were likely associated with the late 19th to early 20th century John Bussell Site, either as outlying artifacts from the main site or as secondary deposits displaced during the Highway 407 construction. It was further determined that the site retains no further cultural heritage value or interest and no further archaeological assessment of the study area was required.

4.1.6.3 Reaman Site Subsidence Incident

On June 5, 2015, the trenchless installation (HDD) of the pipeline under the Reaman archaeological site was completed. Regular monitoring of the site occurred by GTA Project personnel and EI after the HDD was completed to determine if there had been any impacts to the site as a result of the HDD. During routine monitoring, a small scale subsidence and sinkhole was noted to have occurred just within the buffer area surrounding the delineated archaeological site (see Photo 20 in Appendix D). The MTCS and the affected First Nations were

immediately notified of the incident to determine the appropriate mitigation strategy to address the issue.

MTCS and potentially affected First Nations agreed to EGDI's recommendations to backfill the subsidence hole with an unshrinkable backfill (i.e., a self-compacting cement treated aggregate with flowable consistency and controlled low strength properties) with the upper layers overlain with clean fill and covered with topsoil. The unshrinkable fill, clean fill and topsoil were placed by an excavator reaching over the delineated barrier without requiring access onto the Reaman site. Minor foot traffic into the site was the only impact within the site (see Photo 21 in Appendix D).

EGDI invited all potentially affected First Nations to attend all of the remediation activities and completed the remediation of the subsidence on June 25, 2015. As of September 15, 2016, there has been no other noted subsidence within the Reaman archaeological site.

4.1.7 Spills

Spill reporting occurred throughout the project whenever there was a release which occurred that was determined to potentially cause an environmental effect (i.e., any spills outside of established secondary containment mitigation measures). Twenty-three spills were reported, and these included hydrocarbon spills ranging from less than 1 L to 50 L, and also bentonite based drilling mud spills ranging up to 20,000 L.

Upon observation of a spill by any member of the GTA Project Team (i.e., EGDI Inspectors, Contractor personnel, etc.), the EI was notified. If it was confirmed that the spill of any size reached the ground and could potentially cause an effect on the environment, details of the spill were collected and reported to the MOECC's SAC. All spills reported to the MOECC were logged throughout the project (see Appendix E for the spills reported to the SAC). Spills associated with the GTA Project included:

- Inadvertent Fluid Releases (IFR) of drilling mud during HDD;
- Hydraulic fluid releases; and
- Diesel and gasoline fluid releases.

Any IFR which occurred within either the CA or the Redside Dace regulated areas was also reported to the appropriate CA and MNRF as required via email. Potentially affected First Nations who had requested notification were also advised of IFRs occurring in sensitive areas.

All spills were managed by immediately containing the spills and implementing the response measures described within the EPP. Any damaged or effected equipment was repaired prior to resuming service. Once the clean-up was completed, the MOECC's SAC was notified to close the file. As of September 15, 2016, there were no anticipated effects as a result of the spills which occurred over the course of the GTA Project.

4.1.8 Soil Management Program

4.1.8.1 Contaminated Soils

Prior to construction of the GTA Project, the Infrastructure Ontario-owned portions of the ROW were screened in an Environmental Screening Program (ESP) which subjected those sections of the ROW to incrementally intensive investigations based on the results of each stage of the ESP (desktop study and various field investigations). The results of the desktop study were used to select sites for shallow soil sampling intrusive investigations. The results of the shallow soil sampling determined which sites would be subjected to full subsurface drilling investigations where soil and groundwater samples were collected. In all, 10 sites were drilled, and of those, two sites (West of Rodick and East of Rodick) were selected for remedial action to allow safe construction in these areas. Further information on remedial action at these sites is provided in the subsections below.

West of Rodick

The initial desktop review and shallow soil sampling of this site identified a historical scrap yard on the property and the presence of identified metals and polychlorinated biphenyls (PCB) impacts nearby which resulted in a recommendation for a subsurface drilling investigation. The drilling investigation identified concentrations of metals (specifically nickel, lead, and copper) and PCBs that were elevated above the human health component values for construction workers but below levels which would trigger hazardous waste legislation. The affected soil within the permanent easement was delineated by drilling and test pitting, and excavated and removed from the site prior to installation. In all, 2,483 tonnes of soil was excavated and removed from the site and sent to an MOECC licensed landfill appropriate for disposal.

East of Rodick

Similar to the site West of Rodick Road, the initial desktop review and shallow soil sampling of this site also identified a historical scrap yard on the property, and the presence of identified metals and PCBs impacts nearby which resulted in a recommendation for a subsurface drilling investigation. The drilling investigation discovered concentrations of metals (specifically nickel, lead, and copper) that were greater than the human health component values for construction workers, and PCBs that triggered provincial hazardous waste legislation and federal PCB waste legislation. In all, 606 tonnes of contaminated soil were excavated and removed from the site and sent to an MOECC licensed landfill, appropriate for disposal of this material, with an additional 76 tonnes of federally regulated PCB waste manifested and destroyed in a federally licensed PCB destruction facility. The contaminated material was excavated and removed from the site prior to pipeline installation.

2 Essex Avenue

At 2 Essex Avenue in Segment B, which was not identified in the ESP, an abandoned fuel-oil underground storage tank was encountered and damaged during construction. The spilled fuel oil, impacted soil, and approximately 12 tonnes of soil that was potentially exposed directly

adjacent to the leaked fuel oil was excavated and removed from site by the Contractor. Subsequent sampling results indicated that the excavated soil had met applicable standards.

Other Sites

In addition to the environmental screening program, and the remedial actions taken at the three above-referenced locations, soil suspected of having chemical impacts (due to colour or odour) was sampled at another 3 locations not identified in the environmental screening program. At these sites, sampling and laboratory testing of the soil was immediately carried out, which confirmed that suspect soils were not elevated above the human health component values for construction workers.

4.1.8.2 Excess Soil Management

Soil was generally re-used at the site where it originated across the GTA Project which was the preferred method during construction. At sites where excess soil was generated (i.e., narrow corridors where grade elevation was fixed due to surrounding features, drainage constraints or paving), excess soil was sampled and compared to the applicable MOECC site condition standards. Soil that met MOECC Table 1 site condition standards was occasionally used elsewhere on the ROW where deficits of soil were identified. Soil that did not meet Table 1 standards was disposed of at an MOECC licensed landfill.

4.1.9 Hydrostatic Test

As part of completed pipeline integrity testing, hydrostatic testing was completed on each of the pipeline segments. EGDI utilized large lake tanks, in combination with a segmented testing strategy to re-use water for multiple tests, which reduced the overall water taking and disposal requirements during testing. The release of the hydrostatic test water into the environment as a controlled spill required EGDI to receive authorization from the MOECC for a Class IV release under Ontario Regulation (O. Reg.) 675/98. In support of the Class IV release application, a background water quality sample was collected and screened against the Ontario Provincial Water Quality Objectives (PWQOs).

The hydrostatic test discharge for Segment B was located near Beaver Creek Tributary 2 and was directed into the York Region Municipal Sewer which required a Temporary Discharge Approval from the Regional Municipality of York. The Segment B hydrostatic test discharge to the York Region Municipal Sewer occurred from December 28 – 31, 2015 and was compliant with the Temporary Discharge Approval requirements.

The hydrostatic test water from the Parkway West Tie-In section was trucked and discharged to storage tanks located east of Kennedy Road, for later use in other planned hydrostatic tests.

On February 1, and from February 15 to 22, hydrostatic test discharge for Segment A occurred in two sections as a controlled spill into an agricultural swale that is connected to Etobicoke Creek Tributary 2 with both events being compliant with the MOECC Class IV release requirements. No

long-term environmental impacts are anticipated from the hydrostatic test discharges into the York Region Municipal Sewer and Etobicoke Creek tributaries.

4.2 CURRENT CONDITION OF THE ROW

Restoration of the site was progressive throughout construction. Sites were seeded at the appropriate time of year and temporarily stabilized with ESC measures where appropriate. Areas that were too wet or frozen at the time of construction completion were stabilized with appropriate temporary ESC measures until completion of the spring freshet. The majority of these areas were located in Segment A and consisted primarily of agricultural fields and cultural meadow habitats. Final restoration of the GTA Project commenced in June 2016, after the spring freshet. Final restoration work was complete by June 29, 2016 and included some repairs to areas where erosion and/or subsidence had occurred.

Most sensitive sites (watercourses and wetlands) fell under CA permitting and were stabilized as per approved stabilization plans. Watercourses were restored, seeded with a native seed mix and stabilized with appropriate measures to ensure the long-term stability of each watercourse where there is a potential for flooding and/or erosion. The monitoring of watercourses will continue to occur on a regular basis until native seeds have become established. Monitoring was carried out bi-weekly at the crossing of Fletcher's Creek until the site was vegetated. Post-construction monitoring at Fletcher's Creek and the East Don River crossings will continue for an additional four years to comply with conditions set forth in the *Endangered Species Act* permit issued by the MNRF.

The disturbed areas have been seeded with a ground vegetation cover crop or long-term perennial grass, where applicable, to stabilize the soils. Most of Segment A was seeded in 2016 and is in the process of germinating, with most of Segment B seeded in 2015. However, there were some significant areas on Segment B which required re-grading and seeding due to the correction of subsidence observed along the trenchline. Overall, areas which were seeded in 2015 generally have good vegetation establishment. See Photos 22 to 25 in Appendix D for the general condition of vegetation establishment along parts of the ROW that was seeded in 2015 and 2016.

As of August 17, 2016, many areas along the ROW that were seeded in 2016 had not yet germinated due to unseasonably hot and dry conditions. However, monitoring conducted early September indicated that germination is beginning within many areas that had not yet shown new vegetation during previous monitoring events. EGDI is reseeding areas with bare soil along Segments A and B. EGDI will mow, till and reseed as necessary segments of the ROW within the residential areas of Segment B dominated by weed species to promote growth of grasses within the disturbed areas.

The planting of shrubs and trees as per approved restoration plans began in June 2016 but was postponed until September 2016 due to unseasonably hot and dry spring weather. Planting resumed on September 6, 2016 when air temperatures and rainfall are anticipated to be more

favorable for plant survival. Tree and shrub planting is anticipated to be completed by October 15, 2016.

The entire ROW is stabilized with minor bare areas that EGDI has re-seeded. As of September 30, 2016, EGDI will have removed sediment fencing that remained on the ROW following final cleanup. Monitoring will continue in spring 2017 to determine vegetation establishment on the areas seeded in September 2016. Results will be provided and updated as part of the final monitoring program.

5.0 FIRST NATIONS ENGAGEMENT

In 2012, EGDI began consulting with Aboriginal groups regarding the GTA Project. Of the fourteen Aboriginal groups that were contacted, four indicated they had an active interest in the project. EGDI engaged in consultation over the planning, permitting, and construction phases of the GTA project with the following First Nation communities:

- Mississaugas of the New Credit First Nation (MNCFN)
- Six Nations Elected Council (SNEC)
- Haudenosaunee Development Institute (HDI) (on behalf of Haudenosaunee Confederacy Chiefs Council (HCCC))
- Huron Wendat First Nation

The OEB included four conditions (Conditions of Approval 2.7 to 2.10) in their Decision and Order (OEB 2014) for EGDI to follow with respect to the MNCFN during the project. In addition, the Ministry of Economic Development and Growth (formerly Ministry of Economic Development, Employment and Infrastructure), the Ministry of Indigenous Relations and Reconciliation (formerly the Ministry of Aboriginal Affairs), and the MTCS provided feedback and direction regarding EGDI's consultation and engagement process as the project progressed. EGDI continued to engage with the MNCFN to meet the specific conditions set out by the Board, as well as continued to engage with all the above listed Nations in line with provincial ministry feedback.

The following notes summarize EGDI's engagement activities with the above First Nations during the pre-construction, construction and post-construction phases of the project.

5.1 PRE-CONSTRUCTION INFORMATION SHARING

A series of in-person meetings and conference calls were held with each interested First Nation over the course of 2012, 2013 and 2014. To support information sharing, EGDI developed presentations to provide the environmental and archaeological details requested. Project mapping, reports, and schedules were shared where requested, in large part regarding environmental and archaeological assessments. EGDI provided detailed responses to their concerns, provided additional information and reports, and, amended reports and commitments as necessary.

As the GTA Project crossed multiple sensitive environmental and archaeological sites, presentation documents were insufficient on their own to relay EGDI's plans to interested First Nations. It was also beneficial to hold technical conferences, which allowed comprehensive and thorough discussions between the participating First Nations and EGDI. Consultant technical experts participated on behalf of the First Nation and were involved in subsequent document sharing and review. The full day Technical Conferences were important milestones in the consultation history whereby the First Nation representatives were able to fully explain any concerns. EGDI and their technical team were then able to respond, provide clarifications if needed, and refine potential mitigation measures. The Technical Conferences improved and

accelerated the information sharing and understanding between EGDI and the participating First Nation.

The topics reviewed at the Technical Conferences included:

- Environmental Protection Plan
- Environmental permitting and regulator comments on the GTA Project
- SAR and PTTW studies completed, mitigation measures and monitoring protocols
- Construction in wetlands, and associated mitigation measures and monitoring protocols
- Impacts to woodlots, and associated mitigation measures
- Contingency plans for potential IFRs related to HDDs
- Construction scheduling, in particular, around environmental timing window constraints
- Archaeological updates
- Construction monitoring plans
- Restoration plans

EGDI also participated in community events in the MNCFN and SNEC communities. At these open house type events, EGDI shared information with interested community members and interest groups via project booths, summary reports, mapping, and discussions with EGDI staff and consultant specialists. The attendees from the community were able to express concerns to EGDI directly, or to their Nations representatives at a later time.

5.2 FIRST NATIONS AWARENESS TRAINING

In May 2014 EGDI hosted a First Nations Awareness Training with project consultants, contractors and EGDI staff to raise the awareness of cultural sensitivity and understanding. Representatives from the MNCFN were invited to present at the training and offered perspectives from the community. Approximately 45 people from EGDI and environmental and archaeological sub-consultants participated. The MNCFN participation was helpful in providing a community history and overview, and Aboriginal perspectives on the materials being delivered.

5.3 CONSULTATION AND MONITORING AGREEMENTS

Over the course of pre-construction consultation, and as new concerns arose during construction, each First Nation identified what they preferred to be consulted upon, and how they wanted to be involved. EGDI supported and facilitated their reasonable involvement to the extent practical, following direction provided by government ministries and the OEB.

As a result of the extensive consultation and information sharing between 2012 and 2014, EGDI was able to enter into mutually beneficial agreements with MNCFN, SNEC, HDI and HWN. The agreement for each Nation was distinct in that it addressed their unique and specific concerns regarding the GTA Project.

Monitoring agreements facilitated First Nation participation at all stages of the GTA Project, and included environmental and archaeological aspects. The agreements supported field level monitoring, as well as office staff involvement. This enabled both EGDI and field monitors to

continue project communications with the respective First Nation land departments. In turn, project information was circulated and reviewed at First Nation council or band meetings. First Nation consultant support for environmental and archaeological technical discussions and report peer review was also included.

5.4 ASSESSMENTS AND MONITORING PROGRAMS

First Nation field monitors participated in the GTA Project assessments and monitoring of work during pre-construction, and construction, phases, and will be participating in monitoring during the restoration phase. The following sections provide additional detail on First Nation participation during the:

- final environmental field assessments in May and June 2014 prior to construction;
- final archaeological assessments between June and December 2014 prior to construction;
- construction activities between December 2014 and April 2016; and
- restoration work and monitoring which is anticipated to be completed by September 2016.

5.4.1 Pre-Construction Assessments

In May and June 2014, EGDI's environmental consultants completed habitat assessments and SAR surveys for birds and turtles. First Nations who had expressed interest were invited to participate in the field work. None were able to attend.

Between June 2014 to December 2014, MNCFN, SNEC, HDI and HWN participated in an extensive archaeological program including Stage 2, Stage 3 and Stage 4 AAs. Stage 2 AAs were required at any proposed construction location that had not yet been assessed and comprised of just under half the GTA Project working area. Stage 3 and 4 AA programs were required at two of the significant 15th century pre-contact Iroquoian village sites along the route (Pengilley and Reaman), as well as at multiple historic homesteads of European descent that had the potential to contain First Nation artifacts.

During the Stage 3 AA at the Pengilley Site, an aboriginal burial ground was identified. Later in the GTA Project, in June 2015, the Registrar of the Ministry of Government and Consumer Services identified the HWN as the representative for the persons whose remains are located at the Pengilley Site.

5.4.2 Construction and Restoration Monitoring

EGDI arranged for environmental and archaeological construction monitoring from January 2015 to September 2016. MNCFN, SNEC, and HDI participated in environmental monitoring, and HWN declined. MNCFN, SNEC, HDI and HWN participated in archaeological construction monitoring.

First Nation environmental monitoring was conducted at sensitive sites undergoing active construction or restoration work on a monthly basis with technical on-site support from project

EIs. EGDI provided notification of spills or incidents in proximity to significant environmental features, which at times would warrant additional site visits. First Nation environmental monitoring will continue for restoration works monitoring in September 2016.

First Nation archaeological monitoring was conducted weekly during construction within 50 m of the boundary of the Pengilley and Reaman archaeological sites.

MNCFN, SNEC and HDI continued to participate in any additional Stage 2 AAs that were required during construction where the temporary working space needed to expand into adjacent previously unassessed areas.

HWN provided daily archaeological monitoring during construction in proximity to the Pengilley aboriginal burial site in August and September 2015. In June 2016, HWN completed a private ceremony and reinternment at the Pengilley Aboriginal Burial Site.

6.0 STAKEHOLDER RELATIONS AND COMPLAINT LOG

EGDI made commitments to ongoing communication with agencies, stakeholders, First Nations and the public regarding the GTA Project. Design and construction scheduling was made available to interested parties as necessary. In addition, EGDI continued to meet with agencies and stakeholders to determine technical details of the pipeline design, construction coordination, and permitting requirements.

Included in the agencies and stakeholders that EGDI continued to work closely with were local municipalities and regions, CAs, the Ministry of Transportation, 407 ETR Concession Company, MNRF, HONI, Infrastructure Ontario, and the Ministry of Economic Development and Growth. EGDI also coordinated closely with utility companies, landowners, adjacent landowners, and First Nations (see Section 5.0) on various aspects of the project. Residents and businesses in the vicinity of construction were regularly kept informed of project plans, construction and mitigation activities through door drops, signage, and councilor distributed emails, and web updates. EGDI also communicated with schools and associated boards located in close proximity of the construction route to discuss the construction approach and safety protocols in and around schools.

As a requirement of approval to construct the GTA Project, EGDI has been tracking and responding to comments and complaints received throughout the duration of the construction period. This report documents the complaints tracking and management process and provides the log of complaints received and the steps taken by EGDI to resolve them (see Appendix F).

6.1 ENVIRONMENTAL ASSESSMENT COMMITMENTS

Stakeholder involvement was an important component of the environmental assessment and permitting and approvals process. Early and frequent consultation with directly and indirectly affected property owners, government agencies, First Nations and Métis, non-governmental organizations and the public was an integral part of this study. The objectives of the consultation process were to:

- identify potentially affected parties;
- provide information to the parties on relevant components of the study;
- obtain input from these parties; and
- integrate information received into the decision-making process.

As part of this consultation program, EGDI acquired valuable information on the nature and extent of potential impacts and stakeholder concerns, especially to adjacent landowners. Once these issues and concerns were understood, EGDI undertook to provide commitments to mitigate or eliminate them as was reasonably possible. This was accomplished through specific commitments (i.e., maintain access to driveways along the pipeline alignment during construction) or though avoidance (i.e., re-route or use a different construction technique).

6.2 PROCESS AND APPROACH FOR COMPLAINT TRACKING AND RESPONSE

EGDI established a process for both EGDI and the Contractor to follow so construction related complaints could be tracked and responded to in a timely manner. As complaints were received, EGDI tracked and the complaint and subsequent resolution.

The approach taken by EGDI for managing and resolving complaints is rooted in three core principles:

1. Defined Process: Have a process for individuals to follow to file a complaint and for EGDI staff to track its resolution.
2. Individual Contact: Respond to every complaint directly and have an EGDI point of contact for the individual.
3. Timely Resolutions: Determine a course of action to achieve a resolution as fast as reasonably possible (exact timing to achieve a resolution depends on the nature of the complaint).

6.3 COMPLAINTS MANAGEMENT PROCESS

EGDI used the following process for complaint tracking and resolution management. First, EGDI informed community members of the upcoming construction activities and how to contact someone at EGDI or the Contractor if they had questions or complaints related to construction. Fridge magnets with contact information, construction notices, and email notifications via local councilor offices, were delivered to businesses and residents in the vicinity of the construction activities in advance of the work being performed. The contact information provided included a toll-free number, EGDI site staff contact telephone number and email when appropriate, and a GTA Project specific email (gtaproject@enbridge.com). In addition, at the construction site(s), site signage was posted in advance indicating the work being done, road closures, or delay notices.

With community awareness of how to submit/register a complaint, EGDI then followed a process to manage complaints as they were received and track commitments to reach a resolution. The process of complaint management and resolution is outlined below in Figure 6-1. There were two general paths that a complaint followed:

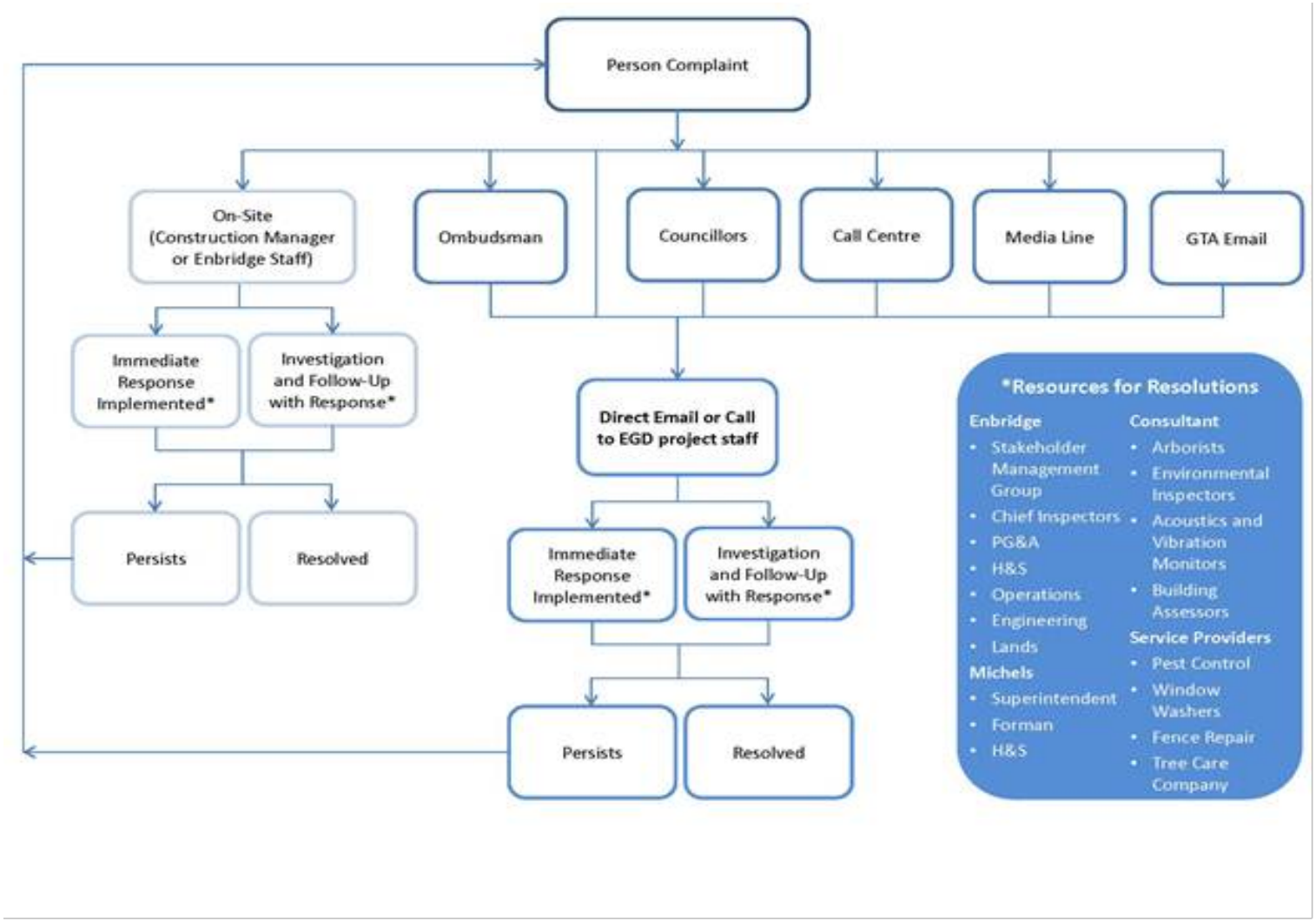
1. Complaint was received –> EGDI staff were assigned to execute an action/commitment to address the complaint –> resolution was reached.
2. Complaint was received –> EGDI staff would execute a direct action immediately (onsite) to reach a resolution.

6.4 RECORDING AND RESPONSE PROCESS

When a complaint was received, EGDI recorded and tracked the response to manage and resolve the complaint. The process involved recording the complaint and recording the

correspondence between the complainant and EGDI as efforts were made to reach a resolution. Correspondence between the complainant and EGDI included phone calls, on-site visits, emails and in-person meetings. Actions to reach a resolution were tracked and follow-up by EGDI staff was completed to confirm resolution. The following chapter outlines the summary of complaints received and introduces the Complaints and Resolutions log.

Figure 6-1 EGDI Complaint Flow Chart



6.5 SUMMARY OF COMPLAINTS

6.5.1 Complaints and Resolutions Log

EGDI has managed a communication log for the duration of the construction period for the GTA Project. The log was used to track complaints received and the correspondence and actions executed to resolve the complaints. Appendix F provides a copy of the log. This log is a living document in which content is added as complaints, actions and resolutions are managed.

The log includes the following content for each complaint received:

- Issue – the overarching issue raised in the complaint received (e.g., pest control, noise, etc.)
- Specific Concern Raised – further detail regarding the specific concerns of the complaint
- Resolution – details of the actions implemented to achieve a resolution
- Status – identification if the actions for resolution are complete, or on-going

During the construction and restoration phases, there have been 203 recorded complaints issued to EGDI. As of September 30, 2016, only three complaints remain unresolved and continue to be addressed. The agreed upon resolution and status of the unresolved complaints will be updated for the Final Monitoring Report. Complaints received related to the following issues:

- Trees
- Noise
- Dust
- Drainage
- Pests
- Port-a-Potty
- Vibration
- Corridor Trails Access
- After-hour work
- Fence Damage
- Other property damage
- Sidewalk / Road Maintenance
- Easement expiry
- Business loss
- Access to garbage areas
- Inconvenience
- Lights
- Parking where not approved

6.6 PRIMARY COMPLAINTS AND STEPS TO RESOLUTION

The Complaints and Resolutions log tracks a variety of complaints received through the established received/response process set out by EGDI. Although an assortment of concerns was received through this process, there are a handful issues that were more typically raised. These top complaint topics and their commonly associated resolutions are as follows:

Pest Control

- Individual complaints were received from residents expressing concern about rodents in the area.
- These complaints were resolved by engaging a pest control company to work with each complainant on resolving the issue to the residents' satisfaction, to the extent possible.

Fence Damage

- Individual complaints were received from residents about damage to fences due to GTA Project construction activity.
- These complaints were resolved by completing repairs to fencing to residents' satisfaction, to the extent possible.

Trees

- Individual complaints were received from residents expressing concern about damage done to trees because of GTA Project construction activity.
- These complaints were resolved by working with the residents, ISA Certified Arborists and Michels to address tree damage to the residents' satisfaction, to the extent possible.

Dust

- Individual complaints were received from residents communicating concern about GTA Project construction dust accumulation on private property.
- These complaints were resolved by requesting additional dust control mitigation by the Contractor, and/or providing residents with compensation for cleaning expenses if warranted.

Other property damage

- Individual complaints were received from residents reporting damage to other property items such as backyard sheds, gates, downspouts, etc. due to GTA Project construction activity.
- These complaints were resolved by working with the residents and Michels to address concerns and repairs to the residents' satisfaction, to the extent possible.

For information on all complaints and resolution steps, please refer to Appendix F.

7.0 LOCAL BY-LAW ISSUES

During the course of construction, EGDI had one by-law issue.

7.1 TREE PROTECTION ZONE ENCROACHMENT

Between July 8 and July 17, 2015, the wooden matting within the Tree Protection Zones (TPZ) was adjusted or removed at three locations within Segment B. After the wooden matting was altered, work was conducted within the boundaries of the TPZs, which was in violation of the City of Toronto tree injury permits. The City of Toronto and private landowners were notified and subsequently agreed with EGDI's proposed mitigation strategy, which included: resurvey of the TPZs; and, additional staking, ribboning, spray paint, and signage to have multiple visual cues and access barriers to prevent encroachment. As of September 15, 2016 there was no physical evidence of impacts to the health of the trees from the TPZ encroachments.

An educational session was completed with the Contractor's crews as they were generally not familiar with unique Toronto tree constraints from past projects. As a result of the additional training, no other encroachments occurred during the construction phase of the GTA Project.

8.0 PROJECT EFFECTS SUMMARY

8.1 RESIDUAL OR CUMULATIVE EFFECTS

Important components that reduced the overall potential for residual and cumulative effects from the GTA Project included:

- pre-construction planning and consultation with regulators and other stakeholders;
- environmental inspection;
- monitoring during construction;
- contingency planning;
- designing appropriate environmental protection measures to be effective in both the short and long term; and
- responding and addressing stakeholder's concerns along the ROW in a timely manner.

Residual effects are those that remain following the implementation of mitigation measures or post construction restoration. Cumulative effects are those that can occur as a result of the combination of interactions of effects on the same project; the combination of interactions of effects on this project with other projects; and the combination of effects over time in the same space.

Cumulative effects were mitigated in the ER by avoiding constraints where possible, implementing specific construction methodologies (i.e., HDD, Track-bore or Direct Pipe) and timing construction to avoid important breeding/spawning windows. A total of fourteen potential other projects were noted in the ER that could interact with the GTA Project, seven in Segment A and seven in Segment. B. These were not considered in the ER to contribute to potential cumulative effect. Based on the monitoring of the construction, which occurred in a previously disturbed right of way, and the restoration of the site to pre-construction conditions, there are no anticipated cumulative effects to the natural environment from the construction activities to date with these 14 projects.

Appendix G presents the predicted effects, a brief discussion on the success of the mitigation measures and the current residual project effects related to the GTA Project. Identified potential effects are based on current conditions.

Provided that outstanding issues identified in Section 9.0 are addressed, no significant residual or cumulative effects on environmental and/or socio-economic features are anticipated as a result of the GTA Project upon completion of the final restoration.

8.2 POTENTIAL IMPROVEMENT OPPORTUNITIES

Overall, the mitigation measures for the GTA Project were successful in limiting potential impacts to the environment. This was done using typical mitigation measures implemented with oversight from project personnel experienced with large scale projects. There were no major material changes to mitigation measures throughout construction. However, some learnings and opportunities for improvement were realized.

1. The nature of pipeline construction is such that specialist workers progress from site to site, carrying out their assigned tasks. Work specialties are not site specific, but environmental features, settings (residential, natural, or agricultural areas) and permit conditions are. In some instances, specialist workers (such as grass mowers) progressed from site to site in an unpredicted order, and they were not familiar with site specific environmental features at a given site. Care should be taken to ensure that all workers are familiar with the environmental features and permit conditions at all the sites where they may be working in a given day and that restricted areas are staked as soon as they are known.
2. A plan for maintaining sediment and erosion control measures throughout winter should be prepared and available. Schedules are subject to change, and standard warm weather measures may fail when ground conditions are frozen.
3. Flash flooding of watercourses is common in urban settings. The GTA Project managed flash flooding successfully during construction by reacting to observed conditions. However, it would be beneficial to have a pre-written, conservative strategy in place for deciding whether to proceed with or to postpone work on days when rain is predicted within a given watershed.
4. A written procedure for obtaining additional TWS should be in place prior to the beginning of construction. This will help manage expectations for the timeframes to obtain archeological clearance, landowner permission, subsurface locates and other clearances for the unplanned and additional workspace that will inevitably be required.

9.0 OUTSTANDING COMMITMENTS

9.1 RESTORATION

Final restoration occurred in June 2016 and was completed on June 29, 2016 under summer conditions. Sites were cleaned up, and seeded with appropriate native or cover seeds to stabilize all sites. Supplemental ESC measures (where applicable) were implemented to provide temporary stabilization until sites are stabilized and restoration is complete. As of September 15, 2016, only tree planting is required along the ROW. Regular monitoring of sensitive sites will be on-going throughout 2016 and 2017 to monitor the conditions of the ROW and address any issues which may arise. The following commitments are the outstanding restoration measures required after September 15, 2016.

9.1.1 Tree and Shrub Planting

Native tree and shrub plantings are outstanding as per municipal and CA commitments along the ROW. The tree and shrub was intended to commence in June 2016 after final restoration began; however, hot and dry weather postponed the plantings to occur under more favorable conditions. Tree and shrub planting is currently on-going at the time of filing this *Interim Monitoring Report* will be reported on in the *Final Monitoring Report* to the OEB.

9.1.2 8th Line Culvert Replacement

As of September 15, 2016, no Notice of Violation has been issued or any other follow-up has occurred from CH as a result of the culvert replacement. If a Notice of Violation or a request for permit is issued by CH, EGDI will adhere to the requirements and will provide any update in the *Final Monitoring Report*.

9.2 COMPLAINT LOG COMMITMENTS

There are currently three outstanding landowner negotiations on-going in the complaints log including an expired easement and tree planting requirements (See Appendix F). Dialogue with the landowners remains on-going and the results of the resolution will be updated in the Final Monitoring Report.

9.3 MONITORING PROGRAMS

To comply with permit conditions and the LTC for the GTA Project, several monitoring programs are to be completed to assess the conditions of the GTA Project. Table 9-1 outlines the outstanding monitoring and reporting requirements. First Nation environmental monitoring (as per Section 5.4.2) will continue for EGDI's ongoing monitoring programs.

Table 9-1 Outstanding Monitoring and Reporting Requirements

Reporting Authority	Permit	Monitoring and Reporting Requirements
MNRF	*Endangered Species Act*: Permit AU-C-010-14	Restoration is complete and effective. Post-construction monitoring at Fletcher's Creek and the East Don River crossings will continue for an additional four years to comply with permit conditions. As per the permit, EGDI will submit annual reports to the MNRF of all activities undertaken in accordance with the permit until January 31, 2020.
MNRF	Endangered Species Act	Bobolink and Eastern Meadowlark habitat assessments will be completed in 2017 on areas of the ROW where Bobolink and Eastern Meadowlark have been confirmed during previous surveys to breed. The scope of the surveys will be to confirm that ROW conditions are favorable for breeding and conform to the *Recovery Strategy for the Bobolink and Eastern Meadowlark in Ontario* (McCracken *et al.* 2013).
TRCA, CVC and CH	CA Permits	As of September 2016, the crossings are stabilized and vegetated. However, native seeds have not yet become established and EGDI will monitor these sites in spring 2017 to determine if native plants have become established in the disturbed areas. Results of the monitoring will be included in the Final Monitoring Report.
OEB	Leave to Construct	As per LTC conditions, EGDI will file a final monitoring report with the Board within fifteen months (June 2017) of the in-service date (March 2016).

10.0 RESOURCES

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Canadian Energy and Pipeline Association (CEPA) and Stantec. 2013. *Migratory Birds Convention Act: A Best Management Practice for Pipelines*.

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McCracken, J.D., R.A. Reid, R.B. Renfrew, B. Frei, J.V. Jalava, A. Cowie, and A.R. Couturier. 2013. Recovery Strategy for the Bobolink (*Dolichonyx oryzivorus*) and Eastern Meadowlark (*Sturnella magna*) in Ontario. Ontario Recovery Strategy Series. Prepared for the Ontario Ministry of Natural Resources, Peterborough, Ontario. viii + 88 pp.

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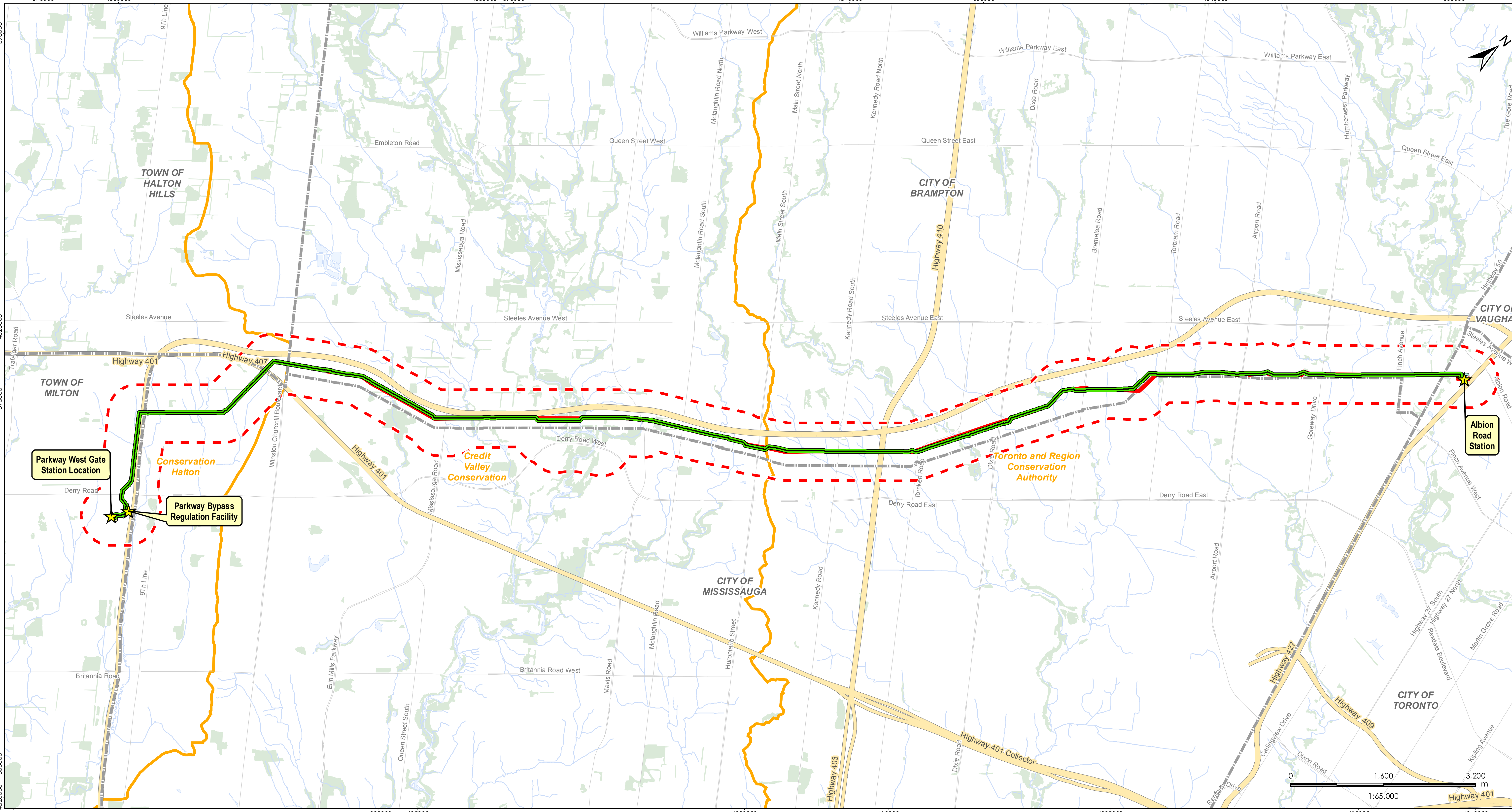
Stantec Consulting Ltd. (Stantec). 2015. *GTA Project Overall Restoration Plan*. Prepared for EGDI Gas Distribution Inc. October 2015.

Stantec. 2015. *EGDI GTA Project Stabilization Plan (Update)*. Prepared for EGDI Gas Distribution Inc. February 13, 2015.

Appendix A GTA PROJECT FIGURES



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Revised: 2016-09-29 By: bcowper

September 2016
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Legend

- Enbridge Facility Location
- Spread 3 (GTA Project)
- Spread 4 (GTA Project)
- Tie-in (GTA Project)
- Preferred Route (July 2013)
- Study Area (July 2013)

Existing Features

- Highway
- Road
- Watercourse
- Waterbody
- Woodlot
- Municipal Boundary
- Conservation Authority

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2015.

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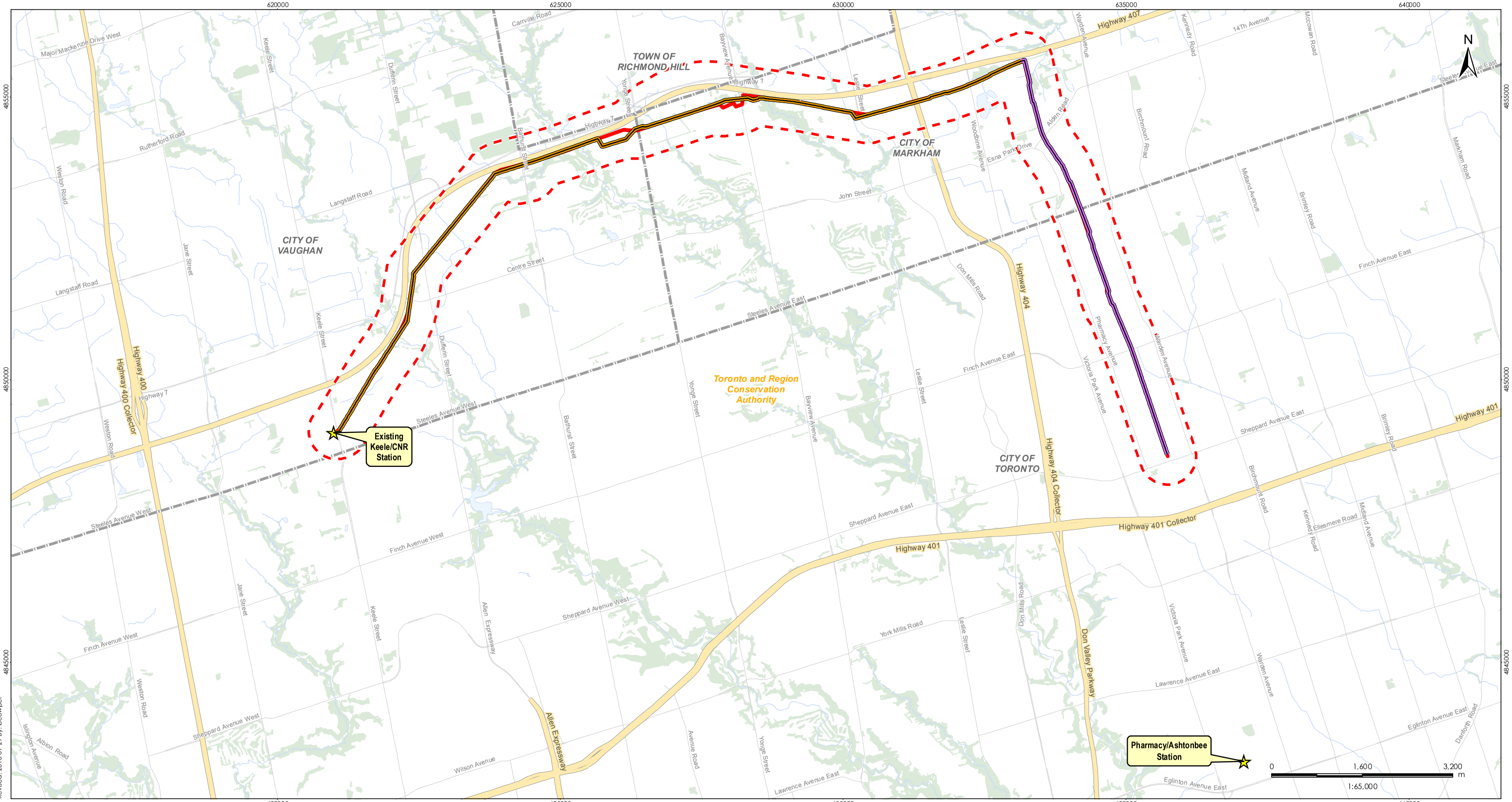
ENBRIDGE® GTA PROJECT

Client/Project
Enbridge Gas Distribution Inc.
Environmental Protection Plan
GTA Project

Figure No.
1

Title
Location Map - Segment A



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Revised: 2016-09-29 By: bcowper

September 2016
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ENBRIDGE GTA PROJECT

Legend

- Enbridge Facility Location
- Spread 1 (GTA Project)
- Spread 2 (GTA Project)
- Preferred Route (July 2013)
- Study Area (July 2013)

Existing Features

- Highway
- Road
- Watercourse
- Waterbody
- Woodlot
- Municipal Boundary
- Conservation Authority

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2015.

Client/Project

Enbridge Gas Distribution Inc.
Environmental Protection Plan
GTA Project

Figure No.

2

Title

Location Map - Segment B

Appendix B ENVIRONMENTAL PERMITS

Table B 1 GTA Project Environmental Permits

Regulatory Authority	Location	Permit/Approval
OEB	GTA Project	Leave to Construct (EB-2012-0451)
MOI	GTA Project	MOI Public Work Class EA (Cat B)
Conservation Authority		
TRCA	Beaver Creek Trib 1	HDD
TRCA	Beaver Creek Trib 2 (East)	OC
TRCA	Don River East Branch Trib 1a and 3	HDD
TRCA	Don River West Branch	HDD
TRCA	Don River West Branch	Vehicle Crossing
TRCA	German Mills Creek	IOC
TRCA	German Mills Creek	Vehicle Crossing
TRCA	Little German Mills	IOC
TRCA	Little German Mills	Vehicle Crossing
TRCA	Little German Mills Trib 1 (at Leslie St)	TB
TRCA	Pomona Creek	HDD
TRCA	Wetland Vaughan TW13	OC
TRCA	Wetland Vaughan TW6+TW7	OC
TRCA	Wetland Vaughan TW8	OC
TRCA	Wetland Vaughan TW9+10	OC
TRCA	Claireville Reservoir Crossing	HDD
TRCA	Etobicoke Creek	TB
TRCA	Etobicoke Creek	Vehicle Crossing
TRCA	Etobicoke Creek Trib 1	IOC
TRCA	Etobicoke Creek Trib 1 and 1a	Vehicle Crossing
TRCA	Etobicoke Creek Trib 1a	IOC
TRCA	Etobicoke Creek Trib 2	IOC
TRCA	Etobicoke Creek Trib 2 and 2a	Vehicle Crossing
TRCA	Etobicoke Creek Trib 2a	IOC
TRCA	Etobicoke Creek Trib 3	IOC
TRCA	Etobicoke Creek Trib 3	Vehicle Crossing
TRCA	Mimico Creek	TB
TRCA	Mimico Creek Trib 1	TB
TRCA	Mimico Creek Trib 2	HDD
TRCA	Mimico Creek Trib 2	Vehicle Crossing
TRCA	Mimico Creek Trib 3	IOC

Table B 1 GTA Project Environmental Permits

Regulatory Authority	Location	Permit/Approval
TRCA	Mimico Creek Trib 3	Vehicle Crossing
TRCA	Mimico Creek Trib 5	IOC/Vehicle Crossing
TRCA	Spring Creek	IOC
TRCA	Spring Creek	Vehicle Crossing
TRCA	Spring Creek Trib 1	IOC
TRCA	Spring Creek Trib 1	Vehicle Crossing
TRCA	Wetland Brampton TW3	OC
TRCA	Wetland Brampton TW5	OC
TRCA	Wetland Markham TW14	OC
TRCA	Wetland Vaughan TW11	OC
CVC	Credit River	DP
CVC	Credit River Trib 1/Churchville Norval PSW	IOC
CVC	Fletcher's Creek	TB
CVC	Fletcher's Creek Trib 1	Vehicle Crossing
CVC	Fletcher's Creek Trib 1	IOC
CVC	Levi's Creek	HDD
CVC	Mullet Creek	IOC
CVC	Mullet Creek	Vehicle Crossing
CH	16 Mile Creek Trib 1a	IOC
CH	16 Mile Creek Trib 1a	Vehicle Crossing
CH	16 Mile Creek Trib 1b	IOC
CH	16 Mile Creek Trib 1b	Vehicle Crossing
CH	16 Mile Creek Trib 1c	IOC
CH	16 Mile Creek Trib 1c	Vehicle Crossing
CH	Wetland Parkway West	OC
CH	Lisgar Meadowbrook Trib 2a	DP
Municipal		
Mississauga	Lisgar Meadowbrook Trib 2a	ESC
Toronto	Sheppard to Steeles	96 Tree Removal
Toronto	Sheppard to Steeles	85 Tree Injury
Toronto	Sheppard to Steeles	Noise Exemption
Markham	Yonge to Steeles	Noise Exemption
Markham	Woodbine/Burncrest	Noise Exemption
Markham	Denison	Noise Exemption

Table B 1 GTA Project Environmental Permits

Regulatory Authority	Location	Permit/Approval
Mississauga	Derry Rd to 407	Noise Exemption
Vaughan	Keele to Yonge	Noise Exemption
Markham	Rodick Road	Hydrant Water
York	Rodick Road	Discharge to Sanitary
		Hydrant Water
Mississauga	Derry Rd to 407	Tree Removal
Provincial		
MNRF	Watercourses and Wetlands	License to Collect Fish
MNRF	Don River East Branch	17 2C Permit - Redside Dace
MNRF	Fletcher's Creek	17 2C Permit - Redside Dace
MNRF	Levi's Creek	Letter of Advice - Redside Dace
MTCS	GTA Project	Stage 1 AA
MTCS	GTA Project	Stage 1 AA
MTCS	GTA Project	Stage 2 AA
MTCS	GTA Project	Stage 2 AA
MTCS	GTA Project	Stage 2 AA
MTCS	Goin Homestead (Leslie St)	Stage 4
MTCS	Moore Homestead (Dixie Road)	Stage 3
MTCS	Pengilley (Credit River)	Stage 4
MTCS	Reaman 1 (Bathurst St)	Stage 2/3
MTCS	Pengilley (Financial to 2nd Line)	Stage 2/3
MTCS	Various Stage 2 AA	Stage 2 Seg A
MTCS	Sopher Homestead (Bramalea Rd)	Stage 3
MTCS	Sopher Homestead (Bramalea Rd)	Stage 4
MTCS	Various Stage 2 AA	Stage 2 Seg B
MTCS	Goin Homestead (Leslie St)	Stage 3
MTCS	4 Locations in Vaughan and Markham	Stage 2 (P083-0258-2015)
MTCS	2 Locations in Vaughan	Stage 2 (P256-0333-2015)
MTCS	4 Locations in Peel and Halton	Stage 2 (P256-0334-2015)
MTCS	2 Locations in Mississauga	Stage 2 (P256-0335-2015)
MTCS	3 Locations in Brampton	Stage 2 (P256-0337-2015)
MTCS	2 Locations in Vaughan	Stage 2 (P256-0338-2015)
MTCS	1 Location in Brampton	Stage 2 (P256-0340-2015)
MTCS	Anode Rectifier Beds	Stage 1 (P256-0346-2015)

Table B 1 GTA Project Environmental Permits

Regulatory Authority	Location	Permit/Approval
MTCS	4 Locations in Peel	Stage 2 (P256-0348-2015)
MTCS	9 Locations in Halton and Peel	Stage 2 (P256-0352-2015)
MTCS	8 Locations in Halton and Peel	Stage 2 (P256-0368-2015)
MTCS	1 Location in Milton	Stage 2 (P256-0380-2015)
MTCS	1 Location in Brampton	Stage 2 (P256-0384-2015)
MOECC	Kennedy to Hwy 427	PTTW (4232-9QSRKA)
MOECC	Parkway to Kennedy	PTTW (2168-9QSRPD)
MOECC	Kennedy to Hwy 427	PTTW (4232-9QSRKA)
MOECC	Hwy 404 to Sheppard	PTTW (1281-9QSRN2)
MOECC	Keele to Hwy 404	PTTW (3851-9QLQ8W)

Appendix C WATERCOURSE CROSSINGS

Table C 1 Watercourse Crossings

Watercourse Crossing	ER Proposed Installation Method	Pipeline Installation Method	Vehicle Crossing Method	Status of Restoration and Stabilization	Additional Monitoring Required
Segment A					
Claireville Reservoir (West Humber)	HDD, TB or IOC	HDD	None	None Required within CA regulation limits	No
Credit River	HDD, TB or IOC	DP	None	Restored and Stable	No
Credit River – Tributary 1	IOC	IOC	Flume	Restored and Stable	No
Etobicoke Creek	HDD, TB or IOC	TB	Bridge	Restored and Stable	No
Etobicoke Creek Tributary 1	IOC	IOC	Flume	Restored and Stable	No
Etobicoke Creek Tributary 1A	NA[1]	IOC	Flume	Restored and Stable	No
Etobicoke Creek Tributary 2	IOC	IOC	Flume	Restored and Stable	No
Etobicoke Creek Tributary 2A	IOC	IOC	Flume	Restored and Stable	No
Etobicoke Creek Tributary 3	HDD, TB or IOC	IOC	Bridge	Restored and Stable	No
Fletcher's Creek	HDD, TB or IOC	TB	None Required	Restored and Stable	Yes as per ESA Permit
Fletcher's Creek – Tributary 1	IOC	IOC	Bridge	Restored and Stable	No
Lisgar Meadow Brook – Tributary 1	IOC	Watercourse realigned into Tributary 2a by landowner and was not present at time of construction.			No
Lisgar Meadow Brook – (Crossing A)	IOC	Watercourse realigned into Tributary 2a by landowner and was not present at time of construction.			No
Lisgar Meadow Brook – (Crossing B)	HDD, TB or IOC	Watercourse realigned into Tributary 2a by landowner and was not present at time of construction.			No
Lisgar Meadow Brook – Tributary 2a	IOC	DP	None Required	Restored and Stable	No
Lisgar Meadow Brook – Tributary 4	IOC	Watercourse realigned into Tributary 2a by landowner and was not present at time of construction.			No
Levi Creek	HDD, TB or IOC	HDD	None Required	None Required within CA regulation limits	Yes

Table C 1 Watercourse Crossings

Watercourse Crossing	ER Proposed Installation Method	Pipeline Installation Method	Vehicle Crossing Method	Status of Restoration and Stabilization	Additional Monitoring Required
Levi Creek – Tributary 1	IOC	Revised pipeline alignment does not cross this tributary.			Yes
Mimico Creek – Tributary 5	IOC	IOC	Bridge with central pier	Restored and Stable	No
Mimico Creek	HDD, TB or IOC	TB	None Required	Restored and Stable	No
Mimico Creek - Tributary 3	HDD, TB or IOC	IOC	Bridge	Restored and Stable	No
Mimico Creek - Tributary 2	IOC	HDD	Bridge	Restored and Stable	No
Mimico Creek - Tributary 1	IOC	TB	None Required	Restored and Stable	No
Mullet Creek	IOC	IOC	Bridge	Restored and Stable	No
Sixteen Mile Creek - Tributary 1a	IOC	IOC	Bridge	Restored and Stable	No
Sixteen Mile Creek – Tributary 1b	IOC	IOC	Bridge	Restored and Stable	No
Sixteen Mile Creek – Tributary 1c	IOC	IOC	Bridge	Restored and Stable	No
Spring Creek	HDD, TB or IOC	IOC	Bridge	Restored and Stable	No
Spring Creek Tributary 1	IOC	IOC	Flume	Restored and Stable	No
Segment B					
Beaver Creek - Tributary 1	ND	HDD	None	Restored and Stable	No
Beaver Creek - Tributary 2 East of Rodick Road	HDD, TB or IOC	IOC	Existing Crossing	Restored and Stable	No
Beaver Creek - Tributary 3a	IOC	IOC	Flume	Restored and Stable	No
Beaver Creek - Tributary 3b	IOC	IOC	Flume	Restored and Stable	No
Little German Mills Creek Tributary	ND	DP	None Required	Restored and Stable	No
Little German Mills Creek	HDD, TB or IOC	IOC	Existing HONI access	Restored and Stable	Yes
German Mills Creek	HDD, TB or IOC	IOC	Bridge	Restored and Stable	Yes

Table C 1 Watercourse Crossings

Watercourse Crossing	ER Proposed Installation Method	Pipeline Installation Method	Vehicle Crossing Method	Status of Restoration and Stabilization	Additional Monitoring Required
Pomona Creek	HDD, TB or IOC	HDD	None Required	None Required within CA Regulation limits	No
Don River East	HDD, TB or IOC	HDD	None Required	Restored and Stable	Yes as per ESA Permit
Don River East – Tributary 1 (Crossing A)	IOC	HDD	None Required	None Required within CA Regulation limits	Yes as per ESA Permit
Don River East – Tributary 1 (Crossing B)	IOC	HDD	None Required	None Required within CA Regulation limits	Yes as per ESA Permit
Don River East – Tributary 1 (Crossing C)	IOC	HDD	None Required	None Required within CA Regulation limits	Yes as per ESA Permit
Don River East – Tributary 3 (Crossing A)	IOC	HDD	None Required	None Required within CA Regulation limits	Yes as per ESA Permit
Don River East – Tributary 3 (Crossing B)	IOC	HDD	None Required	None Required within CA Regulation limits	Yes as per ESA Permit
Don River West	HDD, TB or IOC	HDD	None Required	Restored and Stable	No

NOTES:

HDD – Horizontal Direction Drill
IOC – Isolated Open Cut
TB – Track-Bore
DP – Direct Pipe
ND – Not Determined
HONI – Hydro One
1 - Added by the TRCA during permitting

Appendix D PHOTOS

Photo 1 – Typical tree protection zone set up in Segment B (July 2015)

Photo 2 - Typical tree protection zone set up in Segment B (July 2015)

Photo 3 – Preparing HDD contingency equipment near the East Don River Channel (June 2015)

Photo 4 – Segregating IFR from watercourse using sand bags and sediment fence in a layered approach at the East Don River (July 2015)

Photo 5 – Establishing secondary containment of the IFR from watercourse using double rowed sediment fence and straw bales at the East Don River (July 2015)

Photo 6 – Area disturbed for East Don IFR release containment in September 2016.

Photo 7 – German Mills Creek immediately before conducting the isolated open-cut (September 2015)

Photo 8 – Completing the isolated open cut on German Mills Creek (September 2015)

Photo 9 – German Mills Creek immediately after restoration and temporary stabilization (September 2015)

Photo 10 – Facing east across German Mills Creek valley (September 2016).

Photo 11 – Bed and bank restoration at Little German Mills Creek (September 2016)

Photo 12 – Bed and bank restoration at Little German Mills Creek (July 2015)

Photo 13 – Bed and bank conditions at Little German Mills Creek (August 2016)

Photo 14 – Mullet Creek in June 2016 after addressing some minor bank erosion (June 2016)

Photo 15 – Mullet Creek conditions (September 2016)

Photo 16 – Some stormwater overwhelming the cofferdam at Spring Creek (September 2015)

Photo 17 – Stormwater overwhelming the worksite prior to final restoration of the channel for the isolated open-cut of German Mills Creek (September 2015)

Photo 18 – Jersey barriers and snow fencing installed to stop construction activities through the Pengilley Archaeological Site (January 2015)

Photo 19 – Erecting snow fence and ESC mitigation measures to delineate the Goin Archaeological Site prior to construction (April 2015)

Photo 20 - Minor subsidence at the Reaman Archaeological Site (June 2015)

Photo 21 - Remediation and topsoil replacement at the Reaman Archaeological Site (June 2015)

Photo 22 – Condition of ROW adjacent to residential properties after seeding (July 2016)

Photo 23 - Condition of ROW adjacent to residential properties directly after seeding (June 2016)

Photo 24 - Condition of ROW in the SAR (Bobolink and Eastern Meadowlark) nesting habitat (June 2016)

Photo 25 – Condition of ROW in area seeded in 2015 (June 2016)

Photo 26 - Tree and shrubs planted adjacent to Beaver Creek Tributary 2 (June 2016)

Photo 27 - Tree and shrubs planted adjacent to Beaver Creek Tributary 1 (June 2016)

Photo 28 – Etobicoke Creek restoration along the banks of the creek as per TRCA recommendations to resolved non-compliance (April 2015)

Photo 29 – Placing sediment fence around stockpile at Etobicoke Creek (April 2015)

Photo 30 - Etobicoke Creek after final bank restoration (May 2016)

Photo 31 – Etobicoke Creek banks (August 2016).

Photo 32 – Establishing sediment fence barrier and signage at Fletchers Creek (July 2015)

Photo 33 – Condition of HONI access road near Eighth Line prior to improvements (April 2015)

Photo 34 – Culvert replacement on HONI Access road near Eighth Line (October 2015)

Photo 35 – Churchville-Norval PSW - establishing initial sediment basin (October 2015)

Photo 36 - Churchville-Norval PSW – establishing secondary chambered sediment basin (October 2015)

Photo 37 – Churchville-Norval PSW – establishing secondary straw bale check dam for filtering which was later transitioned into a basin (October 2015)

Appendix E SPILL REPORTING SUMMARY

Appendix E Spill Reporting Summary
September 30, 2016

Table E 1 Spills Reported to the SAC

Spill #	Date	Material Spilled	Location	Quantity	MOE SAC No.
1	7-Jan-15	Diesel	East of Financial Drive	>1 L	7175-9SJUZU
2	14-Jan-15	Hydraulic Oil	Claireville HDD east side	4 L	vehicle exemption
3	21-Jan-15	Drilling Mud	Claireville HDD east side	4000 L	8455-9SYKH3
4	22-Jan-15	Drilling Mud	Claireville HDD east side	20000L	8380-9SZLQG
5	3-Feb-15	Drilling Mud	Beaver Creek HDD south side	5000 L	0854-9te53v
6	4-Feb-15	Drilling Mud	Beaver Creek HDD south side	1000 L	7335-9TERU5
7	7-Feb-15	Drilling Mud	Claireville HDD east side	5000 L	1065-9THPLY
8	10-Feb-15	Diesel	Claireville HDD east side	3 L	2410-9TLSUT
9	3-Mar-15	Drilling Mud	Claireville HDD east side	5000L	6578-9U9NWX
10	8-Mar-15	Drilling Mud	Claireville HDD east side	100L	6578-9U9NWX*
11	20-Mar-15	Hydraulic Oil	Lisgar Creek east bore pit	0.5L	4667-9USNYH
12	17-Apr-15	Drilling Mud	Claireville HDD east side	2000 L	1264-9VNRCC
13	3-Jun-15	Drilling Mud	West of Bramalea	1500L	0521-9X4SBB
14	2-Jul-15	Drilling Mud	East Don River HDD near entrance site	200 L	5282-9Y2RNS
15	8-Jul-15	Drilling Mud	East Don River HDD on east banks	6000 L	8024-9Y8V8U
16	10-Jul-15	Drilling Mud	East Don River HDD on east banks	5000 L	0172-9YAJKE
17	28-Jul-15	Drilling Mud	HWY 410 HDD east side	2000L	7107-9YUL46
18	20-Aug-15	Hydraulic Oil	Albion Station	50 L	6226-9ZQUS4
19	22-Aug-15	Drilling Mud	West Don HDD west side	4000 L	3365-9ZMQ29
20	24-Aug-15	Drilling Mud	West Don HDD west side	4000 L	1025-9ZQJUZ
21	14-Sep-15	Drilling Mud	Near Pomona HDD Entry - onto Cemetery land	50L	4607-A2CVMW
22	14-Sep-15	Drilling Mud	Near Pomona HDD Entry - onto Cemetery land	500L	4086-A29QWY
23	6-Jan-16	Diesel	East of Rodick Road	40 L	7658-A5WKAQ

Appendix F LANDOWNER COMPLAINT AND RESOLUTIONS LOG

Item	Issue	Date Complaint Received	Address	Customer Details	Concern	Resolution	Status
1	Parking where not approved	10-Feb-15	[redacted]	[redacted]	Tenant on neighbouring property complained of contractor parking on their lot without agreement.	Enbridge recommunicated parking boundaries to contractor.	Completed
2	Inconvenience	4-Mar-15	[redacted]	[redacted]	Business management complained that contractors were rude to staff.	Enbridge reminded contractors that they represent Enbridge and that all their interactions with the public is to remain professional and respectful.	Completed
3	Easement Expiry	17-Mar-15	[redacted]	[redacted]	Business owner expressed concern that construction crews accessed private property prior to Enbridge finalizing access agreement.	Contractor stopped work and moved out of area until access agreement was finalized.	Completed
4	Business Loss	1-Apr-15	[redacted]	[redacted]	Business owner expressed concern over loss of business due to construction impacting their seasonal opening date.	Enbridge reviewed the claim with the business owner and provided compensation to satisfy their concern.	Completed
5	Trees	13-Apr-15	[redacted]	[redacted]	Resident expressed concern with damage to tree roots and branches caused by construction within the tree protection zone.	Toronto Forestry recommended mitigation measures to satisfy the residents concerns. Enbridge completed the recommended tree aftercare in 2015 and 2016 as per Toronto Forestry recommendations.	Completed
6	Easement Expiry	23-Apr-15	[redacted]	[redacted]	Business owner complained that construction workers were accessing private property after agreement expired.	Enbridge re-routed access through a neighbouring lot with a valid access agreement.	Completed
7	Drainage	24-Apr-15	[redacted]	[redacted]	Business owner informed Enbridge that temporary grading on construction site impeded drainage off adjacent property.	Enbridge increased water pumping to move water off private property and alleviate drainage problem during construction.	Completed
8	Property Damage	1-May-15	[redacted]	[redacted]	Resident expressed concern for foundation damage caused by construction.	Enbridge completed the foundation repair to satisfy the resident's concern.	Completed
9	Inconvenience	1-May-15	[redacted]	[redacted]	A local school expressed concern because they couldn't host an event due to construction.	Enbridge negotiated with the school to reschedule the event and Enbridge provided corporate sponsorship via the Community Events department.	Completed
10	Fence Damage	1-May-15	[redacted]	[redacted]	Resident expressed concern for fence damage caused by construction.	Enbridge completed the fence repair to satisfy the resident's concern.	Completed
11	Dust	1-May-15	[redacted]	[redacted]	Resident expressed concern about dust accumulation on private property caused by construction activity.	Enbridge provided a window cleaning gift certificate to the resident to satisfy their concern.	Completed
12	Fence Damage	2-May-15	[redacted]	[redacted]	Local school expressed concern that a section of the construction fence had fallen down.	Enbridge notified the contractor who immediately made repairs to the fence section.	Completed
13	Property Damage	5-May-15	[redacted]	[redacted]	Business owner identified asphalt damage due to construction.	Enbridge provided compensation to the business to address the ashphalt repairs.	Completed
14	Port-a-Potty	25-May-15	[redacted]	[redacted]	Resident expressed concern about port-a-potty exhaust vents facing resident backyard.	Enbridge repositioned the port-a-potty to satisfy the resident's concern.	Completed
15	Property Damage	26-May-15	[redacted]	[redacted]	A complaint was received that a contractor vehicle caused damage to a parked vehicle on their lot.	Enbridge provided compensation for repairs.	Completed
16	Inconvenience	June 2015 to Sept 2015	[redacted]	[redacted]	Various residents advised Enbridge Inspectors on site that the construction work was causing a disruption to their neighbourhood.	Enbridge apologized for the inconvenience and explained the purpose and schedule of the construction work. Enbridge provided follow up contact information to the resident.	Completed
17	Dust	3-Jun-15	[redacted]	[redacted]	Resident expressed concern about dust accumulation on private property caused by construction activity.	Enbridge provided compensation to the resident to allow for pool cleaning and window cleaning to satisfy their concern.	Completed
18	Sidewalk / Road Maintenance	3-Jun-15	[redacted]	[redacted]	Business owner issued a complaint that their access was left muddy.	Enbridge cleaned up the access.	Completed
19	Fence Damage	3-Jun-15	[redacted]	[redacted]	Resident expressed concern for fence damage caused by construction.	Enbridge reviewed the claim on site with the resident and offered compensation to accommodate fence repair costs.	Completed
20	Parking where not approved	5-Jun-15	[redacted]	[redacted]	Complaint was received that contractor was parking outside of the agreed area.	Enbridge recommunicated parking boundaries to contractor.	Completed
21	Property Damage	23-Jun-15	[redacted]	[redacted]	Business owner expressed concern that construction work caused upstream flooding onto private property which damaged a pedestrian footbridge.	Enbridge reimbursed the owner for repairs to the pedestrian bridge.	Completed
22	Inconvenience	23-Jun-15	[redacted]	[redacted]	Business management complained that contractors were rude to staff.	Enbridge reminded contractor that they represent Enbridge and that all interactions with the public is to remain professional and respectful.	Completed
23	Noise	26-Jun-15	[redacted]	[redacted]	Business issued a complaint about noise disruption during construction.	Enbridge erected a noise curtain.	Completed

Item	Issue	Date Complaint Received	Address	Customer Details	Concern	Resolution	Status
24	Sidewalk / Road Maintenance	27-Jun-15	[redacted]	[redacted]	Resident expressed concern about temporary sidewalk uneveness during construction and the need for maintenance/monitoring at construction entrances.	Enbridge increased frequency of inspection and maintenance of temporary sidewalk.	Completed
25	Pest Control	27-Jun-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
26	Dust	27-Jun-15	[redacted]	[redacted]	Business owner complained of dust on their buildings and vehicles from construction.	Enbridge erected a noise curtain which also served to block dust.	Completed
27	Drainage	3-Jul-15	[redacted]	[redacted]	Resident concerned with standing water/drainage in the corridor behind their property.	Enbridge explained that grading in the corridor is consistent with pre-construction conditions.	Completed
28	Dust	3-Jul-15	[redacted]	[redacted]	Resident expressed concern about dust accumulation on private property caused by construction activity.	Enbridge provided a window cleaning gift certificate to the resident to satisfy their concern.	Completed
29	Dust	13-Jul-15	[redacted]	[redacted]	Resident expressed concern about dust accumulation on private property caused by construction activity.	Enbridge provided a window cleaning gift certificate to the resident to satisfy their concern.	Completed
30	Drainage	16-Jul-15	[redacted]	[redacted]	Resident expressed concern for drainage changes caused by construction.	Enbridge returned drainage to pre-construction condition.	Completed
31	Fence Damage	16-Jul-15	[redacted]	[redacted]	Business owner notified Enbridge that the temporary fence was not quickly erected and allowed trespassers to vandalize private property.	Enbridge completed temporary fence and provided partial compensation for damages as golf course is open to public via many entrances besides the construction site year round.	Completed
32	Business Loss	16-Jul-15	[redacted]	[redacted]	Business owner expressed concern that due to the construction activities they suffered a loss of business.	Enbridge reviewed the claim on site with the business owner and provided compensation to satisfy the business owner's concerns.	Completed
33	Fence Damage	16-Jul-15	[redacted]	[redacted]	Resident expressed concern for fence damage caused by construction.	Enbridge completed the fence repair to satisfy the resident's concern.	Completed
34	Noise	17-Jul-15	[redacted]	[redacted]	Resident requested to be relocated due to construction noise disrupting her family.	Enbridge satisfied the resident's concerns by accomodating the relocation for the residents son during construction.	Completed
35	Parking where not approved	19-Jul-15	[redacted]	[redacted]	Complaint was received that contractors used parking lot on a Sunday in January 2015 in an area outside the agreed upon location that blocked churchgoers access.	The vehicle was removed immediately and Enbridge recommunicated parking boundaries to contractor.	Completed
36	Pest Control	21-Jul-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
37	Dust	21-Jul-15	[redacted]	[redacted]	Resident expressed concern about dust accumulation on private property caused by construction activity.	Enbridge provided a window cleaning gift certificate and compensation for pool cleaning to the resident to satisfy their concern.	Completed
38	Fence Damage	21-Jul-15	[redacted]	[redacted]	Resident expressed concern for fence damage caused by construction.	Enbridge provided compensation to the resident to accommodate fence repair costs to satisfy their concern.	Completed
39	Trees	21-Jul-15	[redacted]	[redacted]	Resident expressed concern with damage to tree roots and branches caused by construction within the tree protection zone.	Toronto Forestry recommended mitigation measures to satisfy the residents concerns. Enbridge completed the recommended tree aftercare in 2015 and 2016 as per Toronto Forestry recommendations.	Completed
40	Trees	22-Jul-15	[redacted]	[redacted]	Resident expressed concern about burnt cedar hedge due to equipment exhaust pipe. A limb on the resident's apple tree broke due to the weight of the fruit that was hanging in Enbridge ROW.	Tree reassessment scheduled for Spring 2016. Enbridge pruned the apple tree limb under arborist supervision.	Completed
41	Vibration	25-Jul-15	[redacted]	[redacted]	Resident expressed concern for vibration caused by construction.	Enbridge completed vibration monitoring in construction corridor adjacent to resident to confirm vibration was within City of Toronto standards.	Completed
42	Dust	25-Jul-15	[redacted]	[redacted]	Resident expressed concern about dust accumulation on private property caused by construction activity.	Enbridge provided a window cleaning gift certificate to the resident to satisfy their concern.	Completed
43	Property Damage	29-Jul-15	[redacted]	[redacted]	Resident expressed concern for window and fence damage caused by construction.	Enbridge compensated the resident for the window and fence repair to satisfy the resident's concern.	Completed
44	Pest Control	30-Jul-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
45	Pest Control	30-Jul-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
46	Pest Control	30-Jul-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed

Item	Issue	Date Complaint Received	Address	Customer Details	Concern	Resolution	Status
47	Pest Control	30-Jul-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
48	Pest Control	30-Jul-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
49	Pest Control	30-Jul-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
50	Pest Control	30-Jul-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
51	Dust	30-Jul-15	[redacted]	[redacted]	Resident expressed concern about dust accumulation on private property caused by construction activity.	Enbridge provided a window cleaning gift certificate and compensation for pool cleaning to the resident to satisfy their concern.	Completed
52	Pest Control	30-Jul-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
53	Pest Control	30-Jul-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
54	Pest Control	30-Jul-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
55	Pest Control	30-Jul-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
56	Pest Control	30-Jul-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
57	Pest Control	30-Jul-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
58	Pest Control	30-Jul-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
59	Pest Control	30-Jul-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
60	Dust	31-Jul-15	[redacted]	[redacted]	Resident expressed concern about dust accumulation on private property caused by construction activity.	Enbridge provided a window cleaning gift certificate to the resident to satisfy their concern.	Completed
61	Trees	31-Jul-15	[redacted]	[redacted]	Resident expressed concern with damage to tree roots and branches caused by construction within the tree protection zone.	Toronto Forestry recommended mitigation measures to satisfy the residents concerns. Enbridge completed the recommended tree aftercare in 2015 and 2016 as per Toronto Forestry recommendations.	Completed
62	Fence Damage	31-Jul-15	[redacted]	[redacted]	Resident expressed concern for fence damage caused by construction.	Enbridge completed the fence repair to satisfy the resident's concern.	Completed
63	Dust	1-Aug-15	[redacted]	[redacted]	Resident expressed concern about dust accumulation on private property caused by construction activity.	Enbridge provided a window cleaning gift certificate to the resident to satisfy their concern.	Completed
64	Noise	1-Aug-15	[redacted]	[redacted]	Noise from hammering caused disruption to a nearby funeral service.	Enbridge temporarily halted hammering work during funeral services.	Completed
65	Pest Control	5-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
66	Pest Control	5-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
67	Pest Control	5-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
68	Pest Control	5-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
69	Pest Control	5-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
70	Pest Control	5-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
71	Pest Control	5-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
72	Pest Control	5-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
73	Pest Control	5-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
74	Pest Control	5-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
75	Pest Control	5-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
76	Pest Control	5-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed

Item	Issue	Date Complaint Received	Address	Customer Details	Concern	Resolution	Status
77	Pest Control	5-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
78	Pest Control	5-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
79	Pest Control	5-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
80	Pest Control	11-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
81	Pest Control	11-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
82	Pest Control	11-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
83	Pest Control	11-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
84	Pest Control	11-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
85	Pest Control	11-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
86	Pest Control	11-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
87	Pest Control	11-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
88	Pest Control	11-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
89	Pest Control	11-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
90	Pest Control	11-Aug-15	[redacted]	[redacted]	Resident expressed concerns about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
91	Pest Control	12-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Norm Kelly in response to newspaper article about pest control.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
92	Pest Control	17-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
93	Pest Control	17-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
94	Pest Control	17-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
95	Pest Control	17-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
96	Pest Control	17-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
97	Pest Control	17-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
98	Pest Control	17-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
99	Pest Control	17-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
100	Pest Control	17-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
101	Pest Control	17-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
102	Access to garbage areas	17-Aug-15	[redacted]	[redacted]	Tenant expressed concern that construction activities interfered with their garbage pickup.	Enbridge adjusted waste management services to satisfy the tenant's concern.	Completed
103	Pest Control	19-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
104	Pest Control	19-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
105	Pest Control	24-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
106	Pest Control	24-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
107	Pest Control	24-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
108	Pest Control	24-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed

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109	Pest Control	24-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
110	Pest Control	24-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
111	Fence Damage	24-Aug-15	[redacted]	[redacted]	Resident expressed concern for fence damage caused by construction.	Enbridge completed the fence repair to satisfy the resident's concern.	Completed
112	Pest Control	24-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
113	Pest Control	24-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
114	Pest Control	24-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
115	Pest Control	24-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
116	Pest Control	24-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
117	Pest Control	24-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
118	Pest Control	24-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
119	Pest Control	24-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
120	Pest Control	24-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
121	Pest Control	24-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
122	Pest Control	24-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
123	Pest Control	24-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Norm Kelly about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
124	Pest Control	24-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Norm Kelly about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
125	Pest Control	24-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Norm Kelly about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
126	Pest Control	26-Aug-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
127	Pest Control	27-Aug-15	[redacted]	[redacted]	Resident expressed concern about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
128	Pest Control	31-Aug-15	[redacted]	[redacted]	Resident expressed concern about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
129	Pest Control	1-Sep-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
130	Pest Control	1-Sep-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
131	Pest Control	1-Sep-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
132	Fence Damage	1-Sep-15	[redacted]	[redacted]	Resident expressed concern for fence damage caused by construction.	Enbridge completed the fence repair to satisfy the resident's concern. A gap left under the fence was filled by placing soil at the bottom of the fence as agreed with property owner.	Completed
133	Drainage	1-Sep-15	[redacted]	[redacted]	Resident expressed concern for drainage issues caused by construction.	Enbridge returned drainage to pre-construction conditions to satisfy the resident's concern.	Completed
134	Fence Damage	4-Sep-15	[redacted]	[redacted]	Resident expressed concern for fence damage caused by construction.	Enbridge completed the fence repair to satisfy the resident's concern.	Completed
135	Dust	4-Sep-15	[redacted]	[redacted]	Resident expressed concern about dust accumulation on private property caused by construction activity.	Enbridge provided compensation to the resident to allow for pool cleaning and window cleaning to satisfy their concern.	Completed
136	Dust	7-Sep-15	[redacted]	[redacted]	Resident expressed concern about dust accumulation on private property caused by construction activity.	Enbridge provided a window cleaning gift certificate to the resident to satisfy their concern.	Completed
137	Property Damage	7-Sep-15	[redacted]	[redacted]	Resident expressed concern about damaged grass due to a construction flag person sitting on a plastic chair on the grass.	Enbridge asked the construction worker to take care to move the chair to avoid unsightly grass damage on City boulevard.	Completed

Item	Issue	Date Complaint Received	Address	Customer Details	Concern	Resolution	Status
138	Trees	7-Sep-15	[redacted]	[redacted]	Resident expressed concern that the tree removed on the right-of-way compromised their privacy.	Enbridge provided compensation to the resident to allow for new tree planting to address privacy concerns.	Completed
139	Property Damage	7-Sep-15	[redacted]	[redacted]	Resident expressed concern for the potential for pool damage due to nearby deep construction excavations.	Enbridge completed a pre and post construction assessment on the pool to confirm no damages were incurred as a result of construction.	Completed
140	Parking where not approved	8-Sep-15	[redacted]	[redacted]	Complaint was received that contractor was parking outside of the agreed area.	Enbridge recommunicated parking boundaries to contractor.	Completed
141	Trees	10-Sep-15	[redacted]	[redacted]	Resident expressed concern about burnt cedar hedge due to equipment exhaust pipe.	Enbridge provided compensation to address the burnt cedar trees to satisfy the resident's concern.	Completed
142	Pest Control	15-Sep-15	[redacted]	[redacted]	Resident expressed concern to City Councillor Jim Karygiannis about rodents (rats) in the area.	Enbridge hired a pest control company to address this concern under a three month contract at their address.	Completed
143	Property Damage	17-Sep-15	[redacted]	[redacted]	Resident expressed concern for fence backyard interlock paving and shed damage caused by construction and associated vibration.	Enbridge completed fence interlock and shed repair to satisfy the resident's concern.	Completed
144	Property Damage	19-Sep-15	[redacted]	[redacted]	A complaint was received that grass seed was not sufficient to restore area and that sod was required for safety when accessed by students.	Enbridge replaced seeded area with sod.	Completed
145	Business Loss	24-Sep-15	[redacted]	[redacted]	Received a complaint from a tenant that they were unable to service clients due to construction working space and that continued future business losses were expected.	Enbridge worked with the owner to review and compensate them for the substantiated business loss.	Completed
146	Fence Damage	30-Sep-15	[redacted]	[redacted]	Local school expressed concern for fence damage caused by construction.	Enbridge completed the fence repair to satisfy the resident's concern.	Completed
147	Property Damage	30-Sep-15	[redacted]	[redacted]	Local school expressed concern about requirements for a pathway repair after it was damaged due to construction.	Enbridge completed pathway repairs to address the school's concern.	Completed
148	Trees	1-Oct-15	[redacted]	[redacted]	Resident expressed concern about burnt cedar hedge due to equipment exhaust pipe.	Enbridge provided compensation to address the burnt cedar trees to satisfy the resident's concern.	Completed
149	Trees	1-Oct-15	[redacted]	[redacted]	Resident expressed concern about burnt cedar hedge due to equipment exhaust pipe.	Enbridge completed pruning on tree to satisfy the resident's concern.	Completed
150	Property Damage	1-Oct-15	[redacted]	[redacted]	Resident expressed concern for fence and interlock paving damage as a result of	Enbridge completed fence and interlock paving repair to satisfy the resident's concern.	Completed
151	Property Damage	1-Oct-15	[redacted]	[redacted]	Resident expressed concern for the potential for foundation damage caused by construction.	Enbridge monitored a crack in the basement foundation during construction. Enbridge offered compensation to the resident to accommodate foundation repair costs. The resident did not respond to multiple follow ups for 4 months and the file has been closed.	Completed
152	Sidewalk / Road Maintenance	1-Oct-15	[redacted]	[redacted]	Local school expressed concern for safe passage across the temporary sidewalk and requested maintenance be more frequent.	Enbridge increased frequency of inspection and maintenance of temporary sidewalk.	Completed
153	Fence Damage	1-Oct-15	[redacted]	[redacted]	Resident expressed concern for fence damage caused by construction.	Enbridge completed the fence repair to satisfy the resident's concern.	Completed
154	Corridor Trails Access	1-Oct-15	[redacted]	[redacted]	Local school expressed concern for pathway repair adjacent to the school due to construction damage.	Enbridge completed pathway repairs to satisfy the school's concern.	Completed
155	Fence Damage	6-Oct-15	[redacted]	[redacted]	Resident expressed concern for fence damage caused by construction.	Enbridge completed the fence repair to satisfy the resident's concern.	Completed
156	Fence Damage	8-Oct-15	[redacted]	[redacted]	Resident expressed concern for fence damage caused by construction.	Enbridge completed the fence repair to satisfy the resident's concern.	Completed
157	Easement Expiry	10-Oct-15	[redacted]	[redacted]	Business owner complained that the agreement to use property expired.	Enbridge left the property until clarification of agreement was reached.	Completed
158	Drainage	23-Oct-15	[redacted]	[redacted]	Resident expressed concern about drainage in the construction corridor.	Enbridge explained that final grading will return the corridor to pre-construction conditions once construction is completed.	Completed
159	Property Damage	23-Oct-15	[redacted]	[redacted]	Resident expressed concern about compost left on private property.	Enbridge completed clean-up of compost and indicated to the resident that the compost was not related to the construction project.	Completed
160	Property Damage	31-Oct-15	[redacted]	[redacted]	Resident expressed concern about a downspout that was damaged due to construction activities.	Enbridge completed downspout repairs to satisfy the resident's concern.	Completed

Item	Issue	Date Complaint Received	Address	Customer Details	Concern	Resolution	Status
161	Drainage	3-Nov-15	[redacted]	[redacted]	Resident expressed concern about final grading being completed to ensure appropriate drainage and address visible ponding in the corridor.	Enbridge confirmed that the contractor had restored the majority of the area by backfilling to preconstruction grade. Enbridge committed to reassessing the corridor in the spring to address any settlement issues. Enbridge confirmed ponding was due to rain events during frozen or near-frozen conditions in existing low areas.	Completed
162	After-hour work	5-Nov-15	[redacted]	[redacted]	Resident expressed concern about construction driver backing up without a flagger and about working taking place at night.	Enbridge investigated and confirmed with the resident that corrective actions were taken and that correct traffic control measures are in place. Enbridge worked with the contractor to modify the work program to reduce the noise where possible during the overnight hours. Enbridge explained than an after-hour construction noise exemption had been approved and explained the reason why 24-hr work was needed at that time. Enbridge offered to provide alternative accomodations for the resident but the resident declined.	Completed
163	Lights	7-Nov-15	[redacted]	[redacted]	Resident expressed concern about work lights shining into residence overnight.	Enbridge explained that an after-hour work permit was in effect and the reasons for requiring the 24-hr activities during that time. Enbridge adjusted after-hour lighting to reduce the amount of light shining into residential area to the extent possible.	Completed
164	After-hour work	7-Nov-15	[redacted]	[redacted]	Resident expressed concern about work taking place at night.	Enbridge worked with the contractor to modify the work program to reduce the noise where possible during the overnight hours. Enbridge explained than an after-hour construction noise exemption had been approved and explained the reason why 24-hr work was needed at that time. Enbridge offered to provide alternative accomodations for the resident but the resident declined.	Completed
165	Vibration	12-Nov-15	[redacted]	[redacted]	Complaint that vibration during construction caused building damage to the roof bathroom and lighting.	Enbridge installed vibration monitors during construction which confirmed vibrations were within bylaw standards and completed a building inspection. The results confirmed that construction vibration was not the cause of the building damages. In addition Enbridge had a roof investigation conducted which confirmed that the damages to the roof were not caused by or contributed to by the GTA Project's work. A formal letter denying the claim as per the results of the roof study/report was issued to the building owner. To date the building owner has not responded to the letter denying the claim.	Completed
166	Sidewalk / Road Maintenance	12-Nov-15	[redacted]	[redacted]	Resident expressed concern about sidewalk repairs being unsatisfactory.	Enbridge explained to the resident that the sidewalks were repaired to a pre-approved temporary condition post-construction and that the City of Toronto would schedule and manage the permanent repairs to sidewalks.	Completed
167	Noise	13-Nov-15	[redacted]	[redacted]	Resident expressed concern with noise level overnight and sleep disturbance.	Enbridge explained that an after-hour work permit was in effect and the reasons for requiring the 24-hr activities during that time. Enbridge apologized for the inconvenience and advised on timelines.	Completed
168	Pest Control	16-Nov-15	[redacted]	[redacted]	Resident expressed concern about rodents (rats) in the area. The resident was moving in after the house had been vacant for some time.	Enbridge advised the resident that construction in the corridor is complete and the areas that were affected by this issue during the construction phase have already been remedied.	Completed
169	Fence Damage	24-Nov-15	[redacted]	[redacted]	Resident expressed concern for fence damage caused by construction.	Enbridge completed the fence repair to satisfy the resident's concern.	Completed
170	Vibration	30-Nov-15	[redacted]	[redacted]	Resident expressed concern for loud banging heard during construction that caused a vase to fall and break inside the home.	Enbridge replaced the broken vase and mitigated noiseand vibration disturbance to the extent possible. Enbridge completed vibration monitoring in construction corridor adjacent to resident to confirm vibration was within City of Toronto standards.	Completed

Item	Issue	Date Complaint Received	Address	Customer Details	Concern	Resolution	Status
171	Property Damage	3-Dec-15	[redacted]	[redacted]	Resident expressed concern that compensation provided for fence damage and dust does not cover actual costs.	Enbridge met with the resident on site to re-review the impacts and proposed mitigation. For a portion of the claim additional review was needed and Enbridge provided the resident with a claims form. No response was received over a period of 4 months and the file has been closed.	Completed
172	Drainage	9-Dec-15	[redacted]	[redacted]	Resident expressed concern about drainage in corridor possibly affecting their backyard.	Enbridge met with the resident on site and explained the construction work occurring and steps Enbridge was taking to allow drainage to return to pre-construction conditions.	Completed
173	Property Damage	9-Dec-15	[redacted]	[redacted]	Local school expressed concern for damage to stone retaining wall.	EGD compensated TDSB for the repairs to the stone retaining wall	Completed
174	Access to garbage areas	9-Dec-15	[redacted]	[redacted]	Business owner expressed concern that an Enbridge concrete barricade prevented access to business' garbage areas.	Enbridge met with business owner on site to review reported impacts and discuss mitigation measures.	Completed
175	Dust	11-Dec-15	[redacted]	[redacted]	Resident expressed concern about dust accumulation on private property.	Enbridge provided a window cleaning gift certificate to the resident to satisfy their concern.	Completed
176	Easement Expiry	14-Dec-15	[redacted]	[redacted]	Business owner complained that access was occurring without agreement. The property had been sold without notification to Enbridge.	Enbridge entered into a property use agreement with the new property owner.	Completed
177	Noise	15-Dec-15	[redacted]	[redacted]	Local councillor forwarded constituent complaints about heavy trucks driving on roads with heavy truck zoning restrictions.	Enbridge rerouted construction traffic to appropriate roads.	Completed
178	Noise	16-Dec-15	[redacted]	[redacted]	Resident expressed concern to Councillor Valerie Burke about work taking place at night.	Enbridge explained that an after-hour work permit was in effect and the reasons for requiring the 24-hr activities during that time.	Completed
179	Lights	16-Dec-15	[redacted]	[redacted]	Resident expressed concern about work lights shining into residence overnight.	Enbridge explained that an after-hour work permit was in effect and the reasons for requiring the 24-hr activities during that time. Enbridge adjusted after-hour lighting to reduce the amount of light shining into residential area to the extent possible.	Completed
180	Noise	16-Dec-15	[redacted]	[redacted]	Resident expressed concern to Councillor Valerie Burke and Regional Councillor Joe Li about work taking place at night.	Enbridge explained that an after-hour work permit was in effect and the reasons for requiring the 24-hr activities during that time.	Completed
181	Fence Damage	21-Dec-15	[redacted]	[redacted]	Business owner expressed concern about fence damage/inconvenience and impact on horses.	Enbridge modified the corral fencing to satisfy the business' concern. Enbridge installed temporary fencing during winter and permanent fencing post-constructionto satisfy the business' concern.	Completed
182	Corridor Trails Access	23-Dec-15	[redacted]	[redacted]	Resident expressed concern to Councillor Kelly's office about the length of time required for restoration of the corridor behind the resident's home.	Enbridge explained the restoration schedule would recommence in Spring 2016 as work could not proceed in wet or frozen conditions.	Completed
183	Parking where not approved	31-Dec-15	[redacted]	[redacted]	Complaint was received about a contractor vehicle blocking the use of their lot.	The vehicle was removed immediately and Enbridge recommunicated parking boundaries to contractor.	Completed
184	Business Loss	3-Jan-16	[redacted]	[redacted]	Business owner expressed concern that due to the construction activities they suffered increased business costs.	Enbridge worked with the owner to review and resolve the concern to satisfy the business' concern.	Completed
185	Drainage	3-Jan-16	[redacted]	[redacted]	Business owner expressed concern about temporary construction grading and drainage on property.	Enbridge completed grading to improve drainage on lot during the construction period. Grading was retumed to pre-construction conditions once work was completed.	Completed
186	Port-a-Potty	3-Jan-16	[redacted]	[redacted]	Business owner expressed concern for location of port-a-potty on private property impeding business signage.	Enbridge relocated port-a-potty to satisfy the resident's concern.	Completed
187	Sidewalk / Road Maintenance	10-Jan-16	[redacted]	[redacted]	Resident expressed concern about timing of final construction of temporary asphalt sidewalks.	Enbridge explained to the resident that the City of Toronto would manage the permanent repairs to sidewalks after construction was completed according to their schedule.	Completed
188	Parking where not approved	16-Jan-16	[redacted]	[redacted]	There was concern that the parking lot Enbridge was leasing was muddy and the temporary working space boundary was being breached.	Enbridge cleaned the parking lot on a more regular basis and recommunicated boundaries contractor.	Completed
189	Inconvenience	19-Jan-16	[redacted]	[redacted]	The landowner expressed concern that they expected a visual property divide between private tenanted lot and the adjacent lot post-construction.	Enbridge confirmed with the property owner that there was no property divide when construction started and so none was erected.	Completed

Item	Issue	Date Complaint Received	Address	Customer Details	Concern	Resolution	Status
190	Vibration	20-Jan-16	[redacted]	[redacted]	Complaint of vibration during construction.	Property was noted to be significantly away from construction. Enbridge followed up to discuss further with property owner but no calls were returned.	Completed
191	Property Damage	20-Feb-16	[redacted]	[redacted]	Concern was raised that construction activities may have caused groundwater contamination. Landowner was concerned that it would inhibit their development schedule.	Enbridge compensated the property owner for additional groundwater sampling that revealed groundwater met applicable quality standards.	Completed
192	Property Damage	6-Apr-16	[redacted]	[redacted]	A complaint was received that construction adjacent to their property caused cracking in their parking lot.	Enbridge repaired the cracks.	Completed
193	Restoration	4-May-16	[redacted]		Landowner was concerned about timeline for restoration of construction area that required additional touchups.	Enbridge completed the requested restoration works to bring the property back to pre-construction conditions.	Completed
194	Property Damage	13-May-16	[redacted]	[redacted]	Business owner identified sprinkler damage due to construction.	Enbridge provided compensation to the business to address the sprinkler repairs.	Completed
195	Inconvenience	16-May-16	[redacted]	[redacted]	Resident expressed concern about weeds growing behind their property in the corridor.	Enbridge mowed raked and reseeded the area to address the weed growth.	Completed
196	Pest Control	16-May-16	[redacted]	[redacted]	Resident expressed concern for vermin problem caused by construction.	Enbridge provided compensation to satisfy the resident's concern.	Completed
197	Restoration	30-May-16	[redacted]		Landowner complained about muddy access due to construction.	Enbridge cleaned the access road to satisfy the landowner's concern.	Completed
198	Restoration	6-Jun-16	[redacted]	[redacted]	Landowner was concerned about timeline for restoration of construction area that required additional touchups because they had sold the property.	Enbridge completed the requested restoration works to bring the property back to pre-construction conditions.	Completed
199	Property Damage	22-Jun-16	[redacted]	[redacted]	Resident expressed concern about property damage caused by construction activity.	Enbridge provided compensation to the resident to accommodate property repair costs to satisfy their concern.	Completed
200	Easement Expiry	12-Apr-16	[redacted]	[redacted]	Business owner complained about topsoil left on his property. Despite initial compensation for soil removal that was agreed to and paid the owner has claimed that further topsoil was stored and that the site was used for an additional four months beyond the expiry of the original property use agreement.	Enbridge is working with the business owner to determine appropriate resolution. Enbridge has requested documentation to support the business owner's claims but to date have not received anything.	Ongoing
201	Trees	17-Aug-16	[redacted]	[redacted]	Resident expressed concern with damage to tree branches caused by construction.	Enbridge completed pruning on tree to satisfy the resident's concern.	Completed
202	Trees	20-Sep-16	[redacted]	[redacted]	Tenant expressed concern that tree replacements at their property were no longer viable.	Enbridge is working with the business and have agreed to plant cedars along the west and east fence lines to the satisfaction of the business.	Ongoing
203	Property Damage	27-Sep-16	[redacted]	[redacted]	Business owner has re-submitted a claim dated August 1 2016 for damages that he reported in June and July 2015 (see items 21 31 and 32). He expressed concern that construction work caused upstream flooding onto private property which damaged a pedestrian footbridge loss of business and the that construction allowed trespassers to damage the property.	Enbridge believes that the issues resubmitted have already been addressed. Enbridge has requested additional documentation to support those elements of the resubmitted claim that the business owner does not believe have been addressed.	Ongoing

Appendix G PROJECT EFFECTS SUMMARY

Table G 1 Project Effects Summary

Environmental Features	Predicted Effect (Environmental Report)	Mitigation Measures	Residual Effects
Physical Environment			
Physiography, Topography and Surficial Geology	Effects associated with trenching and land grading: • Slope instability • Potential soil erosion • Increase in downstream sedimentation No long term impacts are anticipated for all.	Mitigation measures were implemented during construction as appropriate to prevent any significant slope instability or erosion. ESC measures were proactive and on-going throughout construction to stabilize slopes and soil which resulted in minimized erosion to topsoil into the surrounding area and resulting deposition of sediment.	Trenching, HDD and bore pits during construction were determined to have no significant net effect as predicted. Slope appears stable and erosion controlled. Ongoing monitoring required of bare soil locations. No residual effects anticipated
Groundwater	Effects associated with trenching and trenchless technologies. Potential impacts to the shallow and deep aquifers. No significant net effects were anticipated.	Required permits were acquired and regulatory consultation occurred prior and during construction. Mitigation measures and permit commitments were applied as appropriate during the construction phases of the GTA Project and were successful in mitigating potential effects. There was one issue during dewatering (see Section 3.1.3.1); however, mitigation measures were continually upgraded and monitored daily to manage any potential effects.	Permit conditions were able to be implemented during construction and impacts were closely monitored, and mitigated. Project effects were determined to have no significant net effect as predicted. No residual effects are anticipated.
Bedrock	Increased vibration, dust and noise from construction vehicles, and drill equipment. No significant net effects were anticipated.	Bedrock was only encountered during HDD's. The construction technique used did not require specific mitigation due to bedrock.	Since interaction with bedrock was limited to HDD activities, no effects, including residual were encountered.
Seismicity	No significant net effects were anticipated.	No blasting was necessary during construction.	No significant net effects occurred as a result of the GTA Project as predicted. No residual effects are anticipated.

Table G 1 Project Effects Summary

Environmental Features	Predicted Effect (Environmental Report)	Mitigation Measures	Residual Effects
Natural Environment			
Atmospheric Resources	Air emissions release and dust during dry conditions. No significant net effects were anticipated.	Air emissions were minimized where possible by reducing vehicles on the ROW and limiting idling where possible. Dust impacts were limited during construction and mitigated by not constructing during high wind events and utilizing water suppression where necessary.	Effects on atmospheric resources were localized and temporary as predicted with no significant net effects occurring.
Surface Water, Wetlands, Fish and Aquatic Habitat	Potential impacts include: • increased sediment loading (i.e., suspended or depositional sediment) • changes in channel morphology • alteration and removal of fish habitat, including streambank and riparian vegetation • potential for spills or contamination of the watercourse during construction • flow disruption or blockage of fish passage during construction • release of deleterious substances into the watercourse No significant net effects were anticipated.	Pipeline crossing techniques were completed as per the ER mitigation measures or by less intrusive approaches (HDD). Restoration was proactive and occurred immediately after completion of the crossings to stabilize the watercourse and work areas. The requirements for new vehicle crossings of watercourses were minimized by using existing crossings wherever possible. Permits were obtained for all crossings (pipeline and vehicle) with all permit and ER mitigation measures implemented as required and were successful in limiting potential effects from construction. Although there were some minor stormwater surges during construction, all crossings were completed as required with only minimal residual impacts identified during construction (i.e., temporary sediment releases during storm water events). Surface water features will continue to be monitored in 2017 to assess any potential for long-term effects.	Based on all crossings completed as per permit conditions, ER methodologies, EPP construction techniques and site mitigation, no significant net effects occurred to surface water, wetlands, fish and aquatic habitat as the result of construction. Any residual impacts were temporary and reversible. No long term residual effects are anticipated.

Table G 1 Project Effects Summary

Environmental Features	Predicted Effect (Environmental Report)	Mitigation Measures	Residual Effects
Churchville-Norval Wetland Complex	Potential affect to vegetation; fish and wildlife movement with wetland environment. No significant net effects were anticipated.	The Churchville-Norval Wetland Complex was crossed by means of open-cut in Fall 2015 thereby limiting impacts to breeding birds and breeding amphibians. All mitigation measures were implemented as per permit conditions and the ER and were successful in limiting impacts to the wetland and should recover to pre-existing conditions over time.	Based on the crossing completed as per permit conditions and ER methodologies, and site specific land grading, no significant net effects occurred to the Churchville-Norval Wetland Complex as the result of construction. No residual effects are anticipated.
Terrestrial Habitat and Vegetation	Individual tree and shrub removal and temporary removal of wetland vegetation. No significant net effects were anticipated.	On-going restoration was completed after installation to limit long-term effects and provide stabilization along the ROW. All permit and ER mitigation measures were implemented as indicated. Tree and shrub planting of native species was initiated in Spring 2016; however, due to unseasonably hot and dry conditions, final planting was unable to be completed and resumed in September 2016. Further monitoring will be completed along the ROW in support of the Final Monitoring Report to assess that the site is restored to pre-existing conditions.	Should the ROW continue to recover to pre-existing conditions as targeted and based on the results of regeneration at the time of this report, no significant net effects to terrestrial habitat and vegetation is anticipated to occur. Final monitoring will confirm whether residual effects are present. This will be documented in the final monitoring reports.
Wildlife	Potential effects during construction: • Temporary vegetation removal effect on wildlife habitat • noise from construction activities temporarily disturbing local wildlife • trenching activities	Activities were scheduled to avoid impacts to species as per permit and ER mitigation measures and conditions. Trees were cleared outside of breeding bird windows where possible or nest sweeps were completed prior to clearing to avoid impacts to avian species. Wildlife encounters occurred during the GTA Project with turtles and other species crossing the ROW and were removed from the ROW or allowed to passively leave on their own when possible.	Wildlife mortality was limited during construction to common species. These losses would not affect the population of these species (i.e., groundhogs); no significant net effects occurred as a result of the GTA Project, as predicted. No residual effects are anticipated.

Table G 1 Project Effects Summary

Environmental Features	Predicted Effect (Environmental Report)	Mitigation Measures	Residual Effects
	creating pit falls Construction associated with this project will have limited impact on local wildlife.	Two unplanned wildlife mortality events occurred with common species. Mitigation measures were successful in limiting impacts to wildlife.	
Species at Risk (SAR)	Removal of vegetation affecting foraging and breeding habitat No significant net effects were anticipated.	Impacts to SARs were limited by implementing mitigation measures from the ER and ensuring permit conditions for species at risk were adhered to during construction including mowing nesting areas outside of any breeding bird window for avian SARs known to nest in specific areas. Restoration and seeding was also completed to encourage use by SARs post-restoration including seeding previously identified Eastern Meadowlark and Bobolink habitat with species that will support future nesting. No other potential impacts to SARs were noted along the ROW. See Section 4.1.3 of this report for additional discussion on SARs.	There were no documented direct impacts to SARs as a result of construction of the pipeline; SAR Redside Dace, and Bobolink/Meadowlark habitat have been replaced or protected. There were no significant net effects as a result of the GTA Project, as predicted. No residual effects are anticipated
Agriculture and Soils	Soil compaction, mixing and acceleration of erosion result from land clearing and equipment movement. No significant net effects were anticipated.	Mitigation measures were implemented as per the ER to reduce impacts to soils with topsoil stripping monitored by qualified individuals. Mitigation measures were successful in limiting potential admixing by limiting construction during wet weather. Where construction had the potential to result in compacted or impacted soils, both subsoil and at times topsoil was decompacted where necessary to limit overall effects.	It is anticipated that the implementation of the mitigation measures will have positive effects to limit any ongoing or permanent damage to soils based on the results of monitoring to-date. This will be confirmed during final monitoring; therefore, there should be no significant net effects as a result of the GTA Project as predicted. No residual effects are anticipated.

Table G 1 Project Effects Summary

Environmental Features	Predicted Effect (Environmental Report)	Mitigation Measures	Residual Effects
Socio-Economic Environment			
Noise	Construction noise impacts were anticipated to be minor, temporary and localized and will not result in any health impacts.	Construction occurred within populated areas on a six-day rotation and did not occur on Sunday's or statutory holidays as per the ER unless urgent work was required. Noise complaints that were received were dealt with immediately by EGDI. Details can be found in Appendix E1.	Noise was limited and was minor, temporary and localized. Any complaints were addressed and no residual effects are anticipated.
Access Modifications and Restrictions	No significant net effects were anticipated.	EGDI executed the appropriate mitigation measures which included having an experienced traffic control contractor staged throughout the GTA Project for equipment moving into/out of the ROW.	There were no accidents or incidents during construction. All original access has been restored to pre-existing conditions; as such, there were no significant net effects associated with the GTA Project. No residual effects are anticipated.
Traffic Disruption	Increase in the amount of truck traffic during the pipeline construction. No significant net effects were anticipated.	EGDI adhered to traffic restrictions (timing of lane closures and timing of truck traffic) on various main roadways as imposed by the municipalities and contracted an experienced traffic control contractor to limit impacts to traffic within each of the municipalities where required. Traffic control mitigation measures were successful in mitigating potential interactions with vehicles using municipal infrastructure.	EDG traffic disruption for the GTA Project was minor, temporary and localized with no accidents or incidents on the GTA Project; therefore, no significant net effects were associated with the GTA Project during construction. No residual effects are anticipated.
Vibration	Localized vibration caused by typical construction activities. No significant net effects were anticipated.	As per the mitigation measures in the ER, EGDI conducted vibration monitoring at sensitive locations in Segment B of the GTA Project. During monitoring, there was only one recorded vibration above City of Toronto guidelines. See Section 3.1.7 for additional information on the vibration monitoring program.	Based on the results of the vibration monitoring program, no significant net effects were associated with the GTA Project during construction. No residual effects are anticipated.

Table G 1 Project Effects Summary

Environmental Features	Predicted Effect (Environmental Report)	Mitigation Measures	Residual Effects
Construction Waste	Production of non-hazardous wastes and hazardous wastes from equipment fuels and lubricants. No significant net effects were anticipated.	All construction waste was collected and removed from the construction sites on a daily basis as per the mitigation measures identified in the ER including cleaning up any waste that was located on-site prior to construction commencing.	Since all waste was removed from the site during and after construction was completed, there were no significant net effects associated with the GTA Project. No residual effects are anticipated.
Bentonite Slurry	Bentonite slurry seep resulting in reduced surface groundwater quality. No significant net effects were anticipated.	Bentonite slurry was managed by reducing volumes by using a centrifuge and solidifying the waste and hauling off-site as per the mitigation measures in the ER. During drilling there were various Inadvertent Fluid Returns (IFR) on the ROW which were immediately cleaned up. There were no IFRs which occurred directly into watercourses or other sensitive features during drilling.	Since all bentonite slurry was removed from the site during and after construction was completed and no bentonite slurry directly entered a watercourse, there were no significant net effects associated with the GTA Project. No residual effects are anticipated.
Hydrostatic Test Water	Potential contamination of surface and groundwater from release test waters. No significant net effects were anticipated.	Permits were obtained for water usage and disposal during hydrostatic tests for both segments of the line and were performed to the standards set out in the permit conditions with no incidents occurring during discharge.	Since the hydrostatic test water discharge was completed under the appropriate permit conditions with no incidents, there were no significant net effects associated with the GTA Project. No residual effects are anticipated.
Aesthetics	Visual nuisance to the local residents. No significant net effects were anticipated.	The pipeline has been reclaimed as per ER and permitting conditions with only tree shrub planting still outstanding to be completed in Fall 2016 and should return to pre-existing conditions.	It is anticipated that the ROW stabilizes and restores to pre-existing conditions after the completion of the restoration. There will be no significant net effects associated with the GTA Project. No residual effects are anticipated.

Table G 1 Project Effects Summary

Environmental Features	Predicted Effect (Environmental Report)	Mitigation Measures	Residual Effects
Existing and Planned Land Use	Potential creation of dust, noise, and construction affecting land uses. No significant net effects were anticipated.	EGDI completed consultation to potentially affected parties both prior to and during the construction phase of the GTA Project and logged all landowner complaints during construction. All complaints were mitigated included installing temporary fence where necessary to limit potential interactions between existing properties.	All mitigation measures in the ER and commitments during consultation were adhered to during construction with no residual concerns; therefore, no significant net effects were realized during the construction of the GTA Project. No residual effects are anticipated.
Existing Linear Infrastructure Corridors and Other	Interference with existing infrastructure corridors and infrastructure during construction. No significant net effects were anticipated.	Prior to crossing or excavating within the vicinity of all existing linear infrastructure, the appropriate owners of the facilities were consulted. Construction proceeded to the owner's satisfaction with mitigation measures implemented as agreed upon by the facilities owner and EGDI.	In consideration that all crossings and work within the vicinity of existing linear structures was executed to the satisfaction of the owner, there were no significant net effects realized during the construction of the GTA Project. No residual effects are anticipated.
Population and Demographics	The GTA Project will result in a net positive to residents in the GTA and secure continued safe and reliable access to natural gas to meet future population growth.	No mitigation measures were required implemented to address population or demographics.	The net positive effect was realized during energization of the GTA Project as a secure, reliable source of natural gas is now available to existing and future customers in the GTA.
Economic Activities, Employment and Labour Force	The GTA Project has the potential to result in a net positive impact to residents in the GTA as it will result in the creation of additional employment and economic "spin offs" for local business owners.	No mitigation measures were required to be implemented to address economic activities, employment and labour force.	The net positive effect was realized during the construction phase of the GTA Project.

Table G 1 Project Effects Summary

Environmental Features	Predicted Effect (Environmental Report)	Mitigation Measures	Residual Effects
Tourism and Recreation	Potential to restrict access to recreational facilities. Net effects were not anticipated.	As per the mitigation measures in the ER, access to all recreation facilities was maintained during the construction phase of the GTA Project except for the use of one soccer field in Segment B for the duration of construction. The soccer field was restored in Spring 2016 and is expected to be usable in 2017.	In consideration that access to all recreational facilities were able to be maintained and the soccer field is anticipated to be available for use in 2017, there were no net effects associated with the GTA Project. No residual effects are anticipated.
First Nation and Metis Communities	Potential to impact harvesting rights in the area. Potentially finding/disturbance of First Nation or Métis artifacts. No significant net effects were anticipated.	See Section 5.0 of this report for discussion on the consultation and monitoring for First Nation and Metis Communities. There were two incidents realized during construction including the excavation prior to a Stage 2 AA (see Section 4.1.6.2) and some subsidence within the Reaman Archaeological Site (4.1.6.3). Affected First Nation and regulatory agencies were consulted to determine appropriate mitigation measures to address the incidents which were executed to the satisfaction of the interested parties.	First Nation and Metis Community consultation was proactive and ongoing during construction and incidents were mitigated to the satisfaction of the interested parties; therefore, no significant net effects were realized during the construction of the GTA Project. No residual effects are anticipated.
Archaeological and Heritage Resources	Potential to impact on archaeological Site at 5 locations. No significant net effects were anticipated.	Existing known resources were delineated and avoided during construction with Stage 2 AA completed prior to excavation within all TWS areas. Two incidents did occur during construction (see *First Nation and Metis Communities* Feature in Table 8-1 above) which were addressed to the satisfaction of the interested parties.	Stage 2 AA were completed prior to disturbance with any incidents mitigated to the satisfaction of the interested parties; therefore, no significant net effects were realized to archaeological and heritage resources during the construction of the GTA Project. No residual effects are anticipated.

Table G 1 Project Effects Summary

Environmental Features	Predicted Effect (Environmental Report)	Mitigation Measures	Residual Effects
Community Services	Impeded access to community services No significant net effects were anticipated.	Traffic restrictions were implemented (timing of lane closures and timing of truck traffic) on various main roadways as imposed by the municipalities and contracted an experience traffic control contractor to limit impacts to traffic within each of the municipalities where required. Traffic control mitigation measures were successful in maintaining flow of traffic to community services.	EGDI traffic disruption for the GTA Project was generally minor, temporary and localized and in compliance with the municipalities' restrictions; therefore, no significant net effects to community services were associated with the GTA Project during construction. No residual effects are anticipated.
Planning Policies	No significant net effects were anticipated.	Through the planning process of the GTA Project, EGDI consulted with municipal planning agencies and completed the GTA Project to comply with Official Plan policies and Zoning By-Laws as well as conformance with provincial plans including the Parkway Belt West Plan.	Since EGDI consulted with the appropriate regulatory bodies regarding the GTA Project, there were no significant net effects realized on planning policies. No residual effects are anticipated.
Waste Disposal and Potentially Contaminated Sites	Contaminants that may be present in the study areas may be exposed during trenching and land grading. No significant net effects were anticipated.	Potentially contaminated sites, underground tanks, etc., were identified both prior to and discovered during construction of the GTA Project. Sites (soil, groundwater, and air) were sampled as appropriate to determine the means to address the sites and samples were either disposed of or replaced into the excavation as per regulatory requirements. See Section 4.1.8.1 for additional discussion regarding the mitigation measures implemented during construction.	Contaminated soils were addressed during construction incompliance with Ontario legislation and disposed of off-site where required; therefore no significant net effects were realized during construction. No residual effects are anticipated.