500 Consumers Road
North York, Ontario
M2J 1P8
PO Box 650
Scarborough ON M1K 5E3

Bonnie Jean Adams
Regulatory Coordinator
Telephone: (416) 495-5499
Fax: (416) 495-6072
Email: EGDRegulatoryProceedings@enbridge.com

May 6, 2015

VIA RESS, E-MAIL, and COURIER

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

Re: Enbridge Gas Distribution Inc. ("Enbridge")
Ontario Energy Board ("Board") Docket No.: EB-2012-0099
Ottawa Reinforcement Project
Conditions of Approval – Final Monitoring Report

In the Board's Decision issued on November 29, 2012, the Conditions of Approval required Enbridge to file a final environmental monitoring report for the project 15 months after the in-service date. The final in-service date for the project was February 6, 2014 and requires Enbridge to file the final monitoring report by May 6, 2015.

Enclosed please find the final environmental monitoring report for Enbridge's Ottawa Reinforcement project.

If you have any questions, please contact the undersigned.

Yours truly,

(Original Signed)

Bonnie Jean Adams
Regulatory Coordinator

cc: Zora Crnojacki, OPCC Chair
Pascale Duguay, Manager, Natural Gas Applications, Ontario Energy Board

Ottawa Reinforcement Project Final Post Construction Environmental Monitoring Report

EB-2012-0099

Prepared for:
Enbridge Gas Distribution Inc.
500 Consumers Road
North York, ON M2J 1P8

Prepared by:
Stantec Consulting Ltd.
400-1331 Clyde Avenue
Ottawa, ON K2C 3G4

May 5, 2015

Sign-off Sheet

This document entitled Ottawa Reinforcement Project Final Post Construction Environmental Monitoring Report was prepared by Stantec Consulting Ltd. (“Stantec”) for the account of Enbridge Gas Distribution Inc. (“Enbridge”) Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec’s professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Prepared by _____
(signature)

Josh Mansell

Prepared by _____
(signature)

Edward Malindzak

Reviewed by_____
(signature)

Rooly Georgopoulos

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LIST OF TABLES

1.0 INTRODUCTION

1.1 BACKGROUND

Enbridge Gas Distribution Inc. ("Enbridge") filed an application with the Ontario Energy Board ("the Board") on June 28, 2012 under section 90 of the Ontario Energy Board Act, 1998, S.O. 1998, c. 15, Schedule B, (the "Act") for an order granting leave to construct a natural gas pipeline to reinforce the existing distribution network in the City of Ottawa ("the Ottawa Reinforcement Project" or the "Project"). The Ottawa Reinforcement Project is required to supply the existing customer base, as well as provide additional supply for future growth. The constructed pipeline includes approximately 20 km of 610-mm (24-inch) diameter extra high pressure (XHP) steel pipeline. The Board assigned the application file number EB-2012-0099. The pipeline originates from Enbridge's Richmond Gate Station (located on Fallowfield Road approximately 2 km west of Huntley Road) and ends in the vicinity of West Hunt Club Road and Greenbank Road (**Appendix A**).

In support of the leave for construction and the application to the Board, Enbridge filed an Environmental Report ("ER") (Dillon Consulting Ltd. (Dillon), 2012) indicating a preferred route selection, identifying potential impacts resulting from construction, and mitigation measures to minimize environmental and socio-economic impacts. On November 29, 2012, the Board granted Enbridge approval to construct the pipeline.

Enbridge contracted Dillon to assist in establishing an environmental inspection program to ensure that all environmental terms and conditions, and other commitments identified in the ER, were complied with during all phases of construction of the pipeline. Dillon mobilized Environmental Inspectors to maintain compliance with all approval documentation and best industry practices. An Environmental Inspector was present for full-time inspection during all key construction activities (e.g., watercourse crossings, hydrostatic test discharge). The responsibilities of the Environmental Inspector(s) generally include the following:

- Provide guidance to the Project Manager and Pipeline Inspectors regarding compliance with environmental legislation, regulations and industry standards.
- Ensure that commitments made in the ER were carried out as planned and recommend additional protection measures, if required.
- Provide advice regarding adherence to environmental specifications and commitments made in the previously mentioned documents and to regulatory agencies, including the Board.
- Provide advice on erosion and sediment protection measures to be taken in sensitive locations including watercourse crossings, wetlands.
- When required, act as a liaison between Enbridge and regulatory agencies.

- Identify and provide direction to remediate any unexpected environmental occurrences (e.g., failure of environmental protection measures, damage to protection measures resulting from unexpected storms, residents/landowners concerns).
- Report spills to the Ministry of the Environment ("MOE") as required.
- Provide advice on requirement and placement of erosion and sediment control environmental protection measures.
- Full-time monitoring for all watercourse crossings when using horizontal directional drill ("HDD") methods.
- Document the implementation and effectiveness of environmental protection measures, noting deficiencies and suggesting methods to address environmental deficiencies.
- Maintenance of a photographic log documenting environmental protection activities.
- Monitoring reclamation activities and site stabilization measures.
- Documentation of construction activities and how the environment was protected during construction.
- Provide immediate advice regarding spill prevention and contingency measures.

Enbridge has subsequently completed construction of the Project and the pipeline was energized on February 6, 2014. As part of the Conditions of Approval, Enbridge was required to file a final monitoring report to the Board within fifteen months of the in-service date. Stantec has been retained by Enbridge to complete the final monitoring report, contained herein.

1.2 SCOPE OF THE FINAL MONITORING REPORT

This report has been prepared in accordance with the Ontario Energy Board EB-2012-0099 Conditions of Approval as described below:

3.1 Both during and after construction, Enbridge 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. Enbridge 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 Enbridge'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 as well as comparing predicted and actual impacts (including cumulative impacts). The results of the monitoring programs and analysis, including soil and water, shall be included and recommendations made as appropriate. Any complaints received during construction and any deficiency in compliance with local by-laws and any of the Conditions of Approval shall be explained.

This report summarizes the condition of the rehabilitated right-of-way as observed on April 17, 2015, the results of monitoring programs and the effectiveness of mitigation measures used throughout construction activities. The report summarizes comments received or outstanding since the interim monitoring report, which was filed with the OEB on August 6, 2014, and the actions taken. It also includes any instances where the provisions of local by-laws have not been complied with and the reasons for such non-compliance.

The scope of the report has been prepared to match the size and extent of the Project to meet the Board's requirements indicated above.

2.0 ENVIRONMENTAL PROTECTION MEASURES

Potential adverse environmental effects for the pipeline were avoided or minimized during routing by locating the pipeline mainly within existing and previously disturbed road allowances. A short portion of the project travels through property owned by TransCanada Pipelines Limited (TCPL) from the Richmond Gate Station to Flewellyn Road. Other potential adverse environmental effects as a result of construction and operation activities were reduced by implementing specific construction methodologies and best industry practices including timing the construction of certain segments of the pipeline to not coincide with environmentally sensitive periods.

Potential environmental impacts to wetlands and watercourses were reduced by isolating sensitive features along the proposed route and mitigating effects on wetlands (both unevaluated and provincially significant wetlands (PSWs)) and identified watercourses located along the ROW. Potential impacts to these wetlands and watercourses during construction may have included surface soil erosion adjacent to the watercourses, trench slumping, and in extreme cases, sedimentation or other releases of deleterious substances. As a precautionary measure, the five permanent watercourse crossings were completed by HDD during the summer months when fish were not anticipated to be migrating or spawning, and when the water flow was anticipated to be low. The three seasonal watercourse crossings occurred through open cut in the summer months, at a time when the stream was dry. Additional potential terrestrial impacts (e.g., ground disturbance, clearing) were also eliminated or reduced by utilizing an HDD installation method to avoid sensitive areas identified in the ER and to limit the overall need for reclamation on exposed surfaces.

2.1 SEDIMENT AND EROSION CONTROL

To reduce the risk of sedimentation to adjacent aquatic features (e.g., wetlands and watercourses), erosion and sediment control (ESC) measures were implemented as per Enbridge's Ottawa Reinforcement Contract – Construction Specifications. Deployment of ESC measures on-site was determined by the Environmental Inspector and the Enbridge Inspector as they were site specific. During Stantec's final inspection on April17, 2105 it was confirmed that all ESC measures have been removed and any indication of erosion or sedimentation has been reclaimed properly.

2.2 HORIZONTAL DIRECTIONAL DRILLING

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. Potential construction effects during HDD include siltation and sedimentation during an inadvertent return of bentonite bore mixture to the surface water, erosion of stream banks, and disruption of downstream flow and migration patterns. Extensive mitigation measures were implemented to minimize effects that could potentially occur during HDD crossings by reducing the potential for sedimentation and contamination of the watercourses through a release of 'inadvertent returns' of bentonite bore mixture within the bed and/or banks of the watercourse. The potential release of bentonite bore mixture within the flood plain parallel to the banks of watercourses was mitigated through preparation and installation of protection measures (e.g., fluid containment measures, materials storage) prior to the onset of drilling. Potential releases within the bed and banks of watercourses were mitigated through release preparedness and having the appropriate spill response materials (e.g., silt fence, floating sediment boom, hydro-vac truck) and other resources (e.g., vacuum trucks) readily available during drilling activities. All releases were reported to the MOE's Spills Action Centre immediately after discovery.

To prevent potential hazardous petroleum products or other deleterious substances from entering a watercourse, storage of these materials was kept at a distance greater than 100 m from the watercourses where possible. Temporary ESC measures (e.g., silt fencing, straw bales) were installed prior to drilling (where required) and maintained until all work within or near a watercourse, including restoration, had been completed.

Despite the two releases of bentonite drilling mixture (as discussed in Section 3.3), HDD-bored crossings reduced the potential for sedimentation in watercourses by avoiding disturbances to banks and streambeds.

2.3 WATER WELL MONITORING PROGRAM

To document groundwater quality and groundwater levels, nearby well owners were given the opportunity to participate in a water well monitoring program. Pre-construction and post-construction water well monitoring was completed with the land owners' permission. Monitoring included water quality sampling, and depending on well accessibility, static and pumping water

level monitoring. For dug wells, the water level monitoring program included logger installation where possible and was completed by as licensed well contractor. Depending on access, continuous monitoring was conducted at dug wells as they were considered to be at a greater risk of potential interference from construction activities. Results of the post-construction monitoring are provided below and pre-construction monitoring results are contained in the Interim Monitoring report.

2.4 RECLAMATION

Reclamation and re-vegetation of the ROW was conducted by Enbridge after completion of the pipeline installation. The slopes within the ROW were normally re-seeded as soon as practical following construction activities, with the addition of a layer of erosion control blankets to assist propagation of the seed mixture and to stabilize against erosion. Seeded areas were protected with standard stabilizing techniques within Enbridge's Ottawa Reinforcement Contract – Construction Specifications. Where installed, sediment control fencing was monitored and maintained throughout construction, restoration, and reclamation until vegetative cover was fully established, and then the sediment control fencing was removed.

3.0 ISSUES AND RESOLUTIONS

During the installation of the pipeline, residents' concerns were logged, addressed as quickly as feasible and followed-up by Enbridge to limit potential residual effects as a result of the Project. Any spills and/or releases (e.g., sediment, deleterious substances) into the environment as a result of the Project were reported to the MOE's Spills Action Centre as quickly as feasibly possible and follow-up reporting and impact assessments were conducted as required. A summary of the issues supplemental to those anticipated in the ER and to what was previously provided in the Interim Monitoring Report is contained in Error! Reference source not found. and in **Appendix B**.

3.1 PUBLIC INQUIRIES AND CONCERNS

3.1.1 General Issues

A total of 51 comments were received from residents, businesses, and institutions and are listed in Appendix C of the Interim Monitoring Report. The Interim Monitoring Report identified 6 of the 51 concerns that required a resolution (1 crop loss, 1 noise, 1 discharge pump, 1 regarding natural gas servicing and 2 regarding restoration), and Enbridge worked to address all remaining situations. These 6 concerns, follow-up actions/response and the status for these inquiries or concerns are found in **Appendix B**.

3.2 WATER WELL MONITORING PROGRAM

Of the 55 properties included in the pre-construction monitoring, 48 properties participated in the post-construction monitoring program. Samples were analyzed and compared to the Ministry of the Environment's Ontario Drinking Water Standards, Objectives and Guidelines (ODWSOG).

Results from the post-construction groundwater well and water quality assessment were generally similar to the results from the pre-construction monitoring efforts, with the exception of elevated bacteriological counts at select properties.

ODWSOG exceedances from the 2014 post-construction groundwater well monitoring assessment are summarized below (Dillon 2015):

- Bacteriological parameters (Total Coliforms and/or E. Coli.) were detected at 17 locations sampled.
- Every location sampled had a Hardness which fell outside the ODWSOG operational guideline range; however this is a normal condition for groundwater in the area.
- Chloride concentrations exceeded the aesthetic objective at 9 locations.
- Antimony concentrations exceeded guidelines at 2 locations.
- Iron concentrations at 7 locations exceeded the aesthetic objective.
- One location had a Lead concentration exceeding the standard.
- Five locations had concentrations of Manganese exceeding the aesthetic objective.
- The aesthetic objective for Sodium was exceeded at 10 locations.

Average concentrations of untreated samples met ODWSOG for all parameters analyzed, with the exception of hardness.

Results from the post-construction groundwater well and water quality assessment (Dillon 2015) were generally similar to the results from the pre-construction monitoring efforts, with the exception of elevated bacteriological counts at select properties. Three of the select properties expressed concern regarding the elevated bacteriological results. As a good faith measure Enbridge contracted a licensed well contractor (Capital Water Supply) to shock-chlorinate the wells. Only one of the properties was shock-chlorinated as extreme cold temperatures and a buried well head were the reasons for the other properties not receiving shock-chlorination. After allowing adequate time for residual chlorine to flush from the well that received shock-chlorination, elevated bacteriological counts remained.

Alternate water treatment approaches were proposed at the three properties as a result of the elevated bacteriological counts. Ultraviolet water treatment systems were determined to be the most viable solution and compensation for these systems were offered by Enbridge to the property owners). An amicable resolution is expected between all parties.

3.3 BENTONITE DRILLING MIXTURE RELEASE

Two bentonite drilling mixture releases were recorded during HDD operations during pipeline installation activities. The first release of approximately 500-750 gallons on land occurred August 1, 2013 on West Hunt Club Road (east of Cedarview Road). The spill was cleaned-up immediately after the release using a vacuum truck to collect the material. It was estimated that approximately 90-95% of the release was recovered during the initial cleanup efforts. There was no evidence of the spill during the final inspection and no residual effects to adjacent ditches, culverts, catch basins, or watercourses were observed.

A release of approximately 300-700 gallons occurred September 7, 2013 as the result of a sump pump fault and breaching of the secondary containment zone, resulting in the slurry entering the Faulkner Drain immediately adjacent to the drill set up. The spill was quickly confined and the watercourse was re-routed around the spill using the water diversion system used in the crossing of a tributary to Flowing Creek Phase 1 Drain. Additional erosion control features (i.e., straw bale check dams within the watercourse channel and added silt fencing) were added to provide added filtration capacity and containment; approximately 95% of the release was recovered during the initial cleanup efforts. There was no evidence of the spill during the final inspection and no residual effects to adjacent ditches, culverts, catch basins, or watercourses were observed or anticipated.

3.4 PERMIT TO TAKE WATER (PTTW)

Enbridge had an agreement with the Goulbourn Quarry, owned and operated by Thomas Cavanaugh Construction Ltd. (Cavanaugh), to take water for use in the Hydrostatic Test. Volumes of water taken by Enbridge were within the daily water taking limits outlined in Cavanaugh's PTTW No. 0606-8XMKTS. However, the Ministry of Environment and Climate Change (MOECC) issued a letter dated November 29, 2013 indicating that henceforth, under Section 34 of the *Ontario Water Resources Act* R.S.O. 1990, Chapter O.40., Enbridge must obtain its own PTTW for any water takings greater than 50,000 L/day.

In order to proceed with the construction of the pipeline Enbridge filed two separate PTTW applications to the MOE both dated March 18, 2013. PTTW No. 0504-99UHGB was issued August 7, 2013 to Enbridge to take groundwater from the following locations along the ROW:

- Boiler Room Excavation
- Odourant Building Excavation
- Regulator Building Excavation
- Electrical Building Excavation

A second PTTW, No. 8644-9A5RMN, was issued on August 14, 2013 for surface and ground water taking from the following locations within the ROW:

- Trench along road allowances, Townships of Goulbourn and Nepean

- Horizontal Directional Drilling beneath Faulkner Creek
- Horizontal Directional Drilling beneath Monahan Creek
- Horizontal Directional Drilling at Highway 416 Crossing
- Horizontal Directional Drilling beneath Graham Creek
- Flowing Creek (Crossing No. 4)
- Unnamed Tributary to Flowing Creek (Crossing No. 6)
- Unnamed Tributary to Flowing Creek (Crossing No. 7A)
- Unnamed Tributary to Flowing Creek (Crossing No. 7B)
- Unnamed Tributary to Flowing Creek (Crossing No. 8)
- Unnamed Tributary to Flowing Creek (Crossing No. 9)
- Flewellyn Drain (Crossing No. 17)
- Abandoned Municipal Drain (Crossing No. 25)
- Unnamed Tributary to Stillwater Creek (Crossing No. 33)
- Unnamed Tributary to Stillwater Creek (Crossing No. 37)

Aside from the specific conditions outlined within each PTTW, Enbridge is required to submit daily water taking data collected during construction activities to the MOE's Water Taking Reporting System, on or before March 31st of the following year when water was taken.

Water taking numbers from 2013 were not submitted by March 31, 2014 but have since been provided to the MOECC. Water taking numbers from 2014 were provided by the March 31, 2015 deadline.

3.5 BY-LAW NON-COMPLIANCE

We have received no record of by-law non-compliance issues related to the installation of the pipeline.

Table 1 - *Summary of Environmental Issues and Resolutions*

Activity	Duration	Issues	Resolutions
Reclamation	Duration of Project	• Exposed soil has potential to allow for erosion and sedimentation to adjacent natural environment features (e.g., watercourses, wetlands).	• After all spoil was replaced and final grade of ditch was restored, all backslopes and road embankments were either hydroseeded or mulched to assist in re-establishing vegetation within the ROW.

Activity	Duration	Issues	Resolutions
Well Water Monitoring	Duration of Project	• Landowners with water wells within 15 m of the project area were given the opportunity to participate in a water monitoring program. Forty-eight post-construction samples were collected and the results were sent in writing to each landowner.	• Three households raised concerns regarding elevated bacteriological results. Ultraviolet water treatment systems were determined to be the most viable solution. This is ongoing and an amicable resolution is expected.

4.0 ENVIRONMENTAL IMPACTS

4.1 FINAL RECLAMATION

Reclamation activities after completion of the Project involved revegetating areas within the ROW, revegetating temporary work spaces (TWS), removing materials from all work areas (e.g. ESC measures, garbage) and restoring watercourses to their original conditions. Stantec conducted a final reclamation site visit on April 17, 2015 to inspect the above final reclamation activities completed by Enbridge. Overall, reclamation activities were observed to be successful throughout the alignment of the Project; however several deficiencies were identified and are outlined below.

4.1.1 Gate Station PSW (Goulbourn Wetland Complex)

The pipeline originates at the Richmond Gate Station and travels along the west side of TCPL's Compressor Station 1217 access road adjacent to the Goulbourn Wetland Complex PSW. Vegetation clearing was required to facilitate the installation of the pipeline within this feature and a method of re-establishing the shrub community within the alignment involved using live stakes of Willow sp. (Salix sp.). The majority (greater than 50%) of the live stakes were not established or did not produce evidence of growth (e.g., shoots) at the time of the final reclamation site visit (**Photo 1, Appendix C)**.

A follow-up site visit is recommended later in the growing season to determine if more root wads have started to establish, or if further reclamation efforts are required to restore the original vegetation community to the Goulbourn Wetland Complex PSW.

4.1.2 Flewellyn Road/Eagleson Road Intersection

A TWS (Temporary Working Space) that was located within an agricultural field on the east side of Eagleson Road at the intersection with Flewellyn Road did not appear to have been seeded by the landowner/farmer for 2014 crop. It is likely the field will be planted with a crop species by the landowner / farmer during the 2015 planting season (**Photo 11, Appendix C)**.

A follow up visit to this location is recommended further on in the growing season to determine the success of the crop planted by the land owner/farmer within the TWS.

4.1.3 Eagleson Road/Hope Side Road Intersection

A TWS was constructed in a fallow area along Eagleson Road to facilitate the construction of an access road and valve station at the southeast corner of the Eagleson/Hope Side Road intersection. Currently, the site is sparsely vegetated and naturally re-establishing with species found on adjacent lands (**Photo 13, Appendix C**). The timing of the 2014 work likely limited the ability for vegetation to re-generate. It is anticipated vegetation density will continue to grow as the growing season progresses.

The location is bordered to the south by the Monahan Branch 7 Drain that conveys flows to the Monahan (Main) Drain approximately 550 metres to the east. The sparse vegetation at this location may increase erosion and sedimentation to the adjacent watercourse and consequently the Monahan (Main) Drain downstream, which provides fish habitat.

A follow up visit to this location is recommended further on in the growing season to confirm revegitation of the exposed area is satisfactory.

4.1.4 West Hunt Club Road

Bare areas within the alignment along the south side of West Hunt Club Road between Highway 416 and Greenbank Road should be revegetated and covered with erosion control blankets where appropriate to encourage re-establishment of vegetation. Re-grading specific areas within this section of the alignment may alleviate the issue of standing water and subsequently inhibiting vegetation growth (**Photo 24 - 26, Appendix C)**.

A follow up visit to this location is recommended further on in the growing season to confirm revegitation of the exposed area is satisfactory.

5.0 SUMMARY

The majority of impacts associated with construction of the pipeline and interaction with the construction of other projects were managed appropriately based on the recommendations outlined in the ER. Many of the potential environmental effects for the pipeline were avoided

during routing by locating the majority of the pipeline within existing and previously disturbed road allowances (A small portion of the pipeline passes through TCPL property between the Richmond Gate Station to Flewellyn Road). Other potential adverse environmental effects as a result of construction and operation were reduced by implementing specific construction methodologies (e.g., HDD) and timing construction of certain segments of the pipeline during less sensitive periods.

Monitoring, contingency planning and environmental protection measures were important components to reduce the potential for residual and cumulative effects of the Project, ensuring mitigation measures were effective in both the short and long term. During installation of the pipeline, promptly addressing concerns raised by residents, as well as identifying potential impacts during pre-construction consulting, limited the overall effects of the Project. In addition, knowledge gained throughout this construction can be used to better identify and prevent and/or rectify problems in the future. Provided that the remaining outstanding issues identified in this Final Monitoring Report are addressed, no significant residual or cumulative effects on environmental and/or socio-economic features are anticipated as a result of the Project. An addendum report will be submitted in the fall of 2015 to document the restoration efforts at the remaining sites listed in Section 4.0.

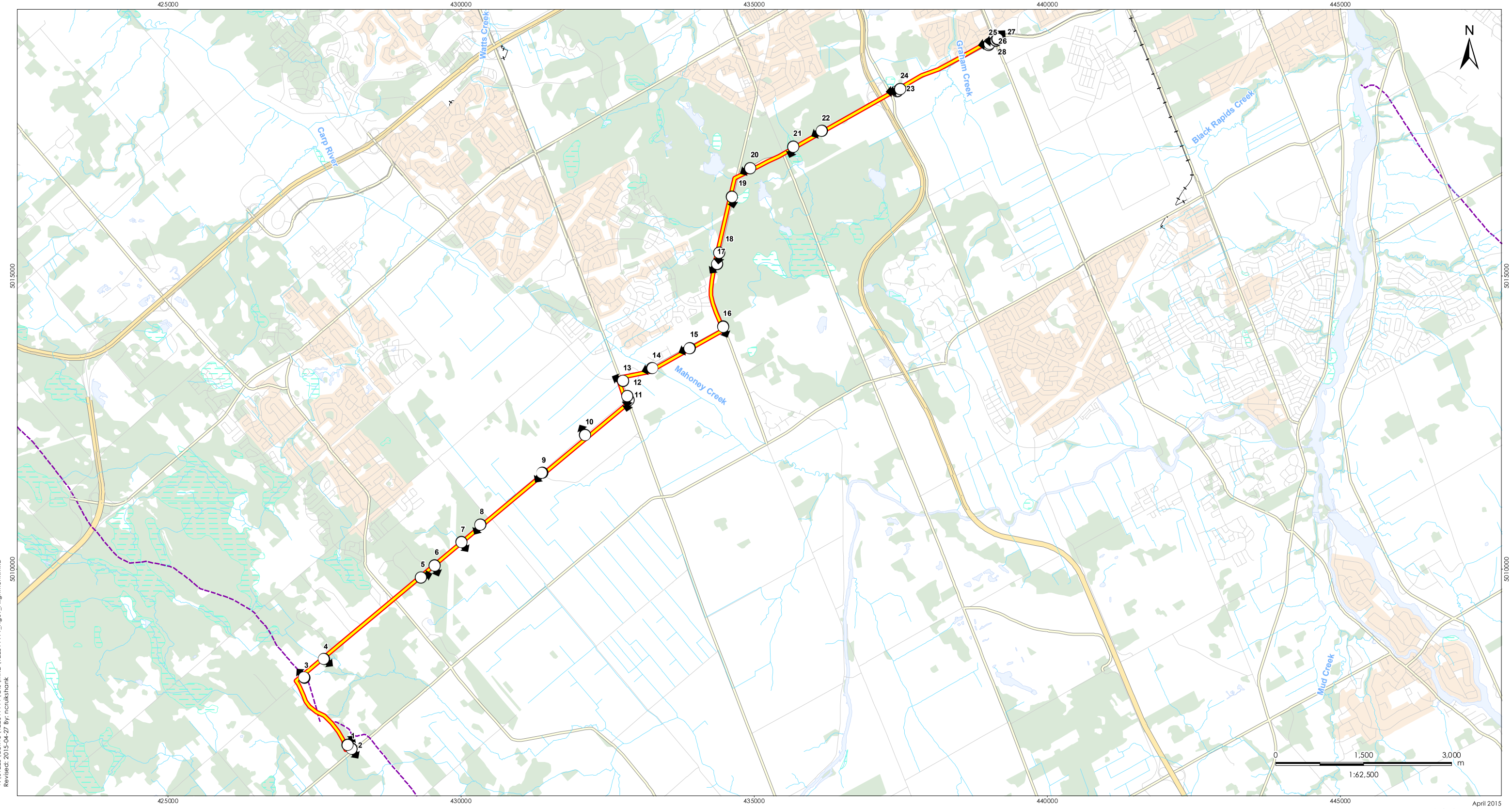
6.0 CLOSURE

This Report has been prepared by Stantec Consulting Ltd. for the sole benefit of Enbridge Gas Distribution Inc. and may not be used by any third party without the express written consent of Enbridge. Any use which a third party makes of this Report is the responsibility of such third party.

The data presented in this Report are in accordance with Stantec's understanding of the Project as it was presented at the time of our Report. In the event that changes or alterations are made to the Project, we reserve the right to review our data with respect to any such changes.

We trust this Report meets your current requirements. Please do not hesitate to contact Stantec should you have additional questions about any facet of this Project. Please do not hesitate to contact the undersigned if you have any questions or require further information.

Appendix A
SITE LOCATION



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Revised: 2015-04-27 By: ncruikshank

Stantec

Legend

- Photo Location & Direction
- Pipeline Alignment
- Watercourse

Notes

1. Coordinate System: NAD 1983 UTM Zone 18N
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2013.

April 2015
Project No. 122511111

Client/Project

Enbridge Gas Distribution Inc.
Ottawa Reinforcement Project
Final Post Construction
Environmental Monitoring Report

Figure No.

1

Title

Photo Locations

Appendix B
SUMMARY OF RESIDENT COMMENTS AND RESOLUTIONS

Item	Type	Date Revised	Date of Original Comment	Original Comment	Resolution	Resolution Update	Status	State
2	Sump discharge	2014-Aug	22-Apr-2013	Resident concerned about sump discharge at ditch. Outlet blocked or buried during construction.	Enbridge investigated issue with homeowner to address immediate concerns of potential flooding. Sump outlet to be confirmed during Spring 2014 cleanup. Customer satisfied with action plan.	Enbridge excavated to confirm location of sump pump discharge to ditch. Reviewed with Homeowner to ensure drainage was properly aligned. Homeowner accepted work completed and confirmed with Builder of home.	Complete	Closed
8	Restoration	12-Nov-2014	5-Jun-2013	Resident asked about tree removal & restoration.	Enbridge reviewed all trees along the route through consultation with Environmental Consultants. a) trees removed on City property along rear fence line have been documented by size/species. b)Enbridge consulted with City of Ottawa, Forestry Inspector and will replant area along Landover Crescent during restoration of the project. c) work to be completed Summer 2014 due to wet weather in Spring 2014.	Enbridge completed tree planting and restoration along Richmond Road. The City of Ottawa was provided with documentation of trees removed/planted with warrantee for 1 year to ensure proper growth/health over winter/summer cycle.	Complete	Closed
19	Noise	2014-Dec	16-Aug-2013	Homeowner concerned about noise levels and construction activity near Gate Station rebuild.	Enbridge provided project scope and expected completion date for construction. Sound dampening technologies were looked into and were implemented. Regular updates were provided to the resident on progress.	Enbridge completed installation of sound mitigation on December 2014 at Richmond Gate Station.	Complete	Closed
33	Servicing	Pending	30-Sept-13	Service Request	Enbridge advised resident that Enbridge would review servicing along the pipeline route in greater detail during 2014.	Service request has been assigned to appropriate Enbridge Customer Connections group for resolution.	In Progress	Open
38	Restoration	2015-Apr	24-Oct-2013	Resident complaint of asphalt damage on West Hunt Club and Richmond Road by Enbridge.	Enbridge was working with City of Ottawa and assessed restoration requirements in Spring 2014.	City of Ottawa accepted proposal for compensation to City Paving Program/Rehabilitation in lieu of restoration of West Hunt Club. Anticipated future work by City for planned road widening would make immediate repairs redundant. Payment close-out is in progress.	Complete	Open
49	Crop Loss	2015-Apr	1-May-2014	Farmer contacted Enbridge seeking compensation for crop loss.	Crop loss claim under review.	Justification of crop loss provided by NCC (owner) on behalf of Tenant accepted.	Complete	Closed

Appendix C
PHOTOGRAPHIC RECORD

Photo 1: Typical conditions within wetland feature along TCPL Compressor Station 1217 access road immediately adjacent to the Richmond Gate Station.

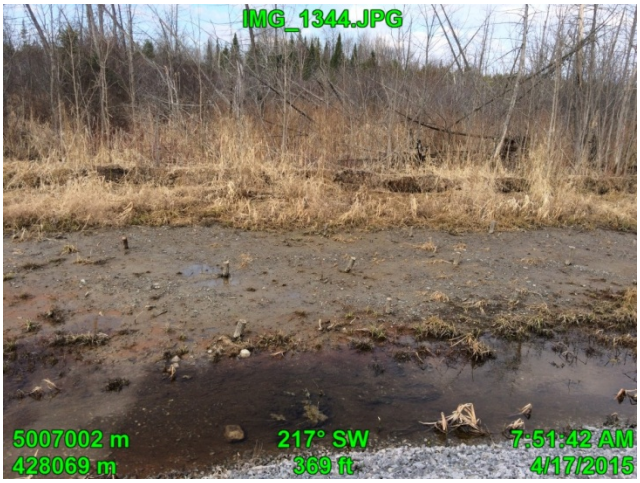

Photo 2: Live stakes within wetland feature along TCPL Compressor Station 1217 access road that have not regenerated.

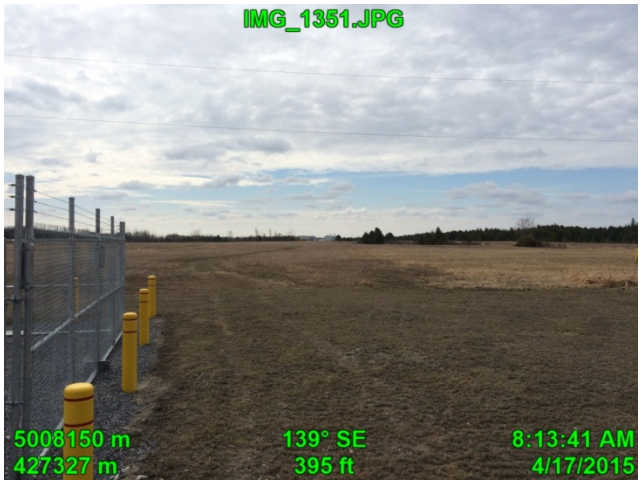

Photo 3: Current reclaimed condition of the TCPL right-of-way looking south from Flewellyn Road towards TCPL Compressor Station 1217

Photo 4: Current condition at the crossing of a tributary to Flowing Creek Phase1 Drain along Flewellyn Road west of Huntley Road.

Photo 5: Current condition of the reclaimed alignment along Flewellyn Road east of Huntley Road

Photo 6: Current condition of an unnamed watercourse entering the roadside ditch along Flewellyn Road east of Huntley Road

Photo 7: Current condition of reclaimed roadside ditch confluence with the Faulkner Drain along Flewellyn Road

Photo 8: Current location of a previous bentonite spill along Flewellyn Road west of Shea Road – note area has been reclaimed properly

Photo 9: General alignment conditions along Flewellyn Road east of Shea Road and west of Faulkner Trail

Photo 10: Typical roadside alignment conditions along Flewellyn Road west of Faulkner Trail – note the early establishment of vegetation

Photo 11: Large, unvegetated TWS within an agricultural field along Eagleson Road at the intersection with Flewellyn Road – revegetation is anticipated during the agricultural planting season

Photo 12: Typical roadside alignment conditions along Eagleson Road – note the establishment of vegetation

Photo 13: Large, unvegetated TWS at the valve station location at the intersection of Eagleson Road and Hope Side Road – note vegetation has not established at this location

Photo 14: Current conditions along the alignment at the Monahan (Main) Drain along Hope Side Road

Photo 15: Typical roadside alignment conditions along Hope Side Road east of Crownridge Drive

Photo 16: Current condition of roadside ditch within alignment at the intersection of Hope Side Road and Old Richmond Road – note ongoing residential development

Photo 17: Current condition of Mature American Elm tree within the alignment along Old Richmond Road identified in the interim monitoring report – note tree is currently in good health

Photo 18: Current condition of the reclaimed alignment along Old Richmond Road adjacent to a feature within the Stony Swamp Wetland Complex PSW north of Stonehaven Drive

Photo 19: Current condition of the reclaimed alignment along Old Richmond Road adjacent to a feature within the Stony Swamp Wetland Complex PSW south of West Hunt Club Road

Photo 20: An open excavation along the reclaimed alignment along West Hunt Club Road between Old Richmond Road and Moodie Drive

Photo 21: Condition of a reclaimed unnamed watercourse originating from the Stony Swamp Wetland Complex PSW within the alignment along West Hunt Club Road east of Moodie Drive

Photo 22: Current conditions within the alignment along West Hunt Club Road between Moodie Drive and Highway 416 – note vegetation is established

Photo 23: Current location of a previous bentonite spill along West Hunt Club Road east of Highway 416 – note area has been reclaimed properly and vegetation is established

Photo 24: One of several areas along West Hunt Club Road between Highway 416 and Greenbank Road that require further revegetation – note standing water

Photo 25: Typical conditions within alignment along West Hunt Club Road west of Greenbank Road – note vegetation is established

Photo 26: Current condition of alignment along West Hunt Club Road at Greenbank Road – note vegetation has not established and soil is exposed

Photo 27: Current condition of the southeast corner at the intersection of West Hunt Club Road and Greenbank Road – note construction activities are ongoing

Photo 28: Current condition of the southeast corner at the intersection of West Hunt Club Road and Greenbank Road – note construction activities are ongoing