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August 19, 2013

VIA COURIER AND EMAIL

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge Street, Suite 2700
Toronto, ON M4P 1E4

Re: Enbridge Gas Distribution Inc. ("Enbridge")
EB-2012-0031 Angus Reinforcement Pipeline Project
Conditions of Approval - Interim Monitoring Report

In the Ontario Energy Board's Decision issued on June 21, 2012, the Conditions of Approval required Enbridge to file the Interim Monitoring Report for the project 6 months after the in-service date. The final in-service date for the Angus Reinforcement Pipeline Project was February 20, 2013 and requires Enbridge to file the Interim Monitoring Report by August 20, 2013.

Enclosed please find the interim monitoring report for the project.

Any future developments will be communicated to the Board.

If you have any questions, please contact the undersigned.

Yours truly,

(Original Signed)

Stephanie Allman
Regulatory Coordinator

cc: Zora Crnojacki, OPCC Chair
Pascale Duguay, Manager, Facilities Applications, Ontario Energy Board (via courier and email)

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**ENBRIDGE GAS DISTRIBUTION INC.
POST-CONSTRUCTION
ENVIRONMENTAL MONITORING REPORT NO.1
ANGUS REINFORCEMENT PIPELINE PROJECT
EB-2012-0013**

Prepared by
Enbridge Gas Distribution Inc.
July 22, 2013

1.0 Introduction

In June 21, 2012, the Ontario Energy Board (“OEB”) under docket number EB-2012-0013 granted Enbridge Gas Distribution Inc. (“Enbridge”) Leave to Construct an nominal pipe size (NPS) 6 (6-inch outer diameter) pipeline to reinforce the existing natural gas distribution network in Angus and surrounding communities. Prior and subsequent to obtaining approval, Enbridge conducted the following studies to select a pipeline route, identify potential impacts resulting from construction, and prepare mitigative measures to minimize environmental and socio-economic impacts.

<u>Report Title</u>	<u>Conducted by:</u>	<u>Date</u>
Pipeline to Reinforce the Natural Gas Distribution Network in the Vicinity of Angus	Stantec Consulting Limited	December 2011
STAGE 1 ARCHAEOLOGICAL ASSESSMENT Pipeline to Reinforce the Town of Angus, Ontario Lots 14 , 15, 16, 17 in Concession 4, 5, 6, 7, 8, 9, 10, 11, Essa Township	Stantec Consulting Limited	November 2011
STAGE 2 ARCHAEOLOGICAL ASSESSMENT Pipeline to Reinforce the Town of Angus, Ontario Lot 16 Concessions 4, 5, 6, 7, 8, 9, 10, 11, Essa Township	Stantec Consulting Limited	April 2012
Final Report Geotechnical Investigation Pipeline to Reinforce the Natural Gas Distribution Network in the Vicinity of Angus Country Road 21 and TransCanada Trail between Baxter and Thornton, ON	Stantec Consulting Limited	July 2012

Construction of the Angus Reinforcement Pipeline Project began on October 26, 2012 and was completed and energized on February 20, 2013.

This report has been prepared in accordance with OEB EB-2012-0013 Board Staff Proposed 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 each action.

- 3.2 The interim monitoring report shall confirm Enbridge 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 the mitigation measures undertaken. The results of the monitoring programs and analysis shall be included and any recommendations made as appropriate. Any deficiency in compliance with any of the Conditions of Approval shall be explained.

This report is limited to items that have been identified prior to July 22, 2013. Items addressed after this date will be identified in the final Post-Construction Environmental Monitoring Report. This report will summarize actual construction procedures and identify any significant deviations from proposed construction activities.

2.0 Project Description

The pipeline project was constructed to reinforce the existing Angus natural gas distribution network (please see map on page 8 for pipe location). The reinforcement is necessary to meet the needs of residential, commercial and industrial customers in the Township of Essa and surrounding area.

The pipeline originates at the Enbridge Thornton Gate Station located at 4118 Innisfil Beach Road, Town of Innisfil, Ontario. The pipeline proceeds west along Innisfil Beach Road where it crosses County Road 27 (Barrie Street). It then heads south along County Road 27 to the Trans Canada Trail and heads southwest along the Trans Canada Trail. It then turns west onto County Road 21 (Robert Street) and continues on

this road (which turns into Murphy Road). The extent of the new pipe ends in the vicinity of Denney Drive and County Road 21 (Murphy Road) in Baxter, Ontario where it ties into an existing Enbridge pipeline. The pipeline is approximately 10.2 kilometers (km) in length. Appendix A shows the constructed pipeline within a regional context.

3.0 Environmental Inspection

In order to ensure that environmental commitments were honoured and that the best industry practices were used, a full time Chief Inspector was on site. In general, the duties of the Chief Inspector included the following items:

- provide advice to the Project Manager, Construction Inspectors, and all construction personnel regarding compliance with environmental legislation, regulations and industry standards;
- provide advice regarding adherence to environmental specifications and commitments made in the previously mentioned documents and to regulatory agencies, including the OEB;
- provide advice on erosion protection measures to be taken in sensitive locations in vicinity of watercourse crossing;
- act as a liaison with environmental regulators, government agencies and interest groups;
- provide immediate advice regarding spill prevention and contingency; and,
- ensure appropriate waste disposal of any hazardous construction wastes.

An Enbridge Environment, Health and Safety (EHS) Specialist also conducted routine inspections of the ongoing construction to identify environmental issues which needed to be addressed and communicated these to the Project Manager. There was also a Project Manager on site full time.

4.0 Public Complaints

Two formal complaints resulting from construction were submitted directly to Enbridge on January 7, 2013 and January 14, 2013. Two other complaints were submitted to Enbridge by the Contractor (Link Line) and by Simcoe County on January 15, 2013 and

February 2, 2013. Details of complaints and the actions taken are recorded in the Complaint Log in Appendix C.

5.0 Construction Effects and Mitigation Measures

Construction effects and mitigation measures which were implemented to minimize the potential effects from the construction of the Angus Reinforcement Pipeline Project are summarized in Table 1. All activities were conducted in adherence to the contract documentation and Enbridge Construction Policies and Procedures.

Table 1
Construction Effects and Mitigation Measures

Activity	Duration	Potential Effect	Mitigation Measures
Vegetation Cover	Throughout Construction (October 26, 2012 to February 20, 2013)	Permanent removal of vegetation. Aesthetic degradation. Changes in surface drainage patterns affecting amount of water available. Changes to sunlight or wind exposure regimes.	All trees on the road allowance adjacent to roadways were identified prior to construction. Limits of work area marked to minimize encroachment into adjacent agricultural or vegetated areas. Majority of construction completed within existing road allowance.
Topsoil Handling	Throughout Construction	Disruption of surface and subsurface soils. Soil mixing may result in loss of productivity.	Care was taken to minimize mixing of subsoils. Topsoil was replaced on surface during restoration.
Watercourse Crossing	Throughout Construction	Disruption of watercourse through siltation and sedimentation. Erosion of channel banks and loss of vegetation cover. Contamination of surface water. Interruption of subsurface drainage along pipeline trench.	Crossing of the Nottawasaga River, Thornton Creek and four tributaries of Thornton Creek were completed by directional drill. Watercourse crossing permits were obtained from the Nottawasaga Valley Conservation Authority. Sediment fencing was installed to prevent sedimentation and siltation. Geotechnical assessments were completed to assist in development of crossing profile.

Table 1
Construction Effects and Mitigation Measures (Continued)

Activity	Duration	Potential Effect	Mitigation Measures
Traffic Control	Throughout Construction	Exposure of construction crews to vehicular traffic.	Contractor ensured MTO Book 7 traffic control plan has been completed and has been set up in accordance with the prescribed Traffic Layout.
Road Crossings	Throughout Construction	Restricted access to businesses and residences.	Several road crossings, including Innisfil Beach Road, County Road 27 (Barrie Street), 11 th Line, 10 th Line, 9 th Line, 8 th Line and Simcoe County Road 56 were completed by directional drill. Warning signs and barricades set up to increase visibility and prevent public access.
Noise	Throughout Construction	Disturbances to sensitive receptors (i.e. residents, seniors' homes, schools).	Construction equipment conformed to guidelines for sound and emission levels.
Archaeological Monitoring	Throughout Construction	Disturbance and potential destruction of archaeological artifacts.	Stantec Consulting Ltd. conducted Stage 1 and 2 Archaeological Assessments prior to construction to identify areas of high potential for artifacts. Construction within limits of ROW minimized potential for encountering archaeological artifacts. No artifacts were encountered.
Trenching and Excavation	Throughout Construction	Open trenches present a hazard to vehicular and pedestrian traffic. Restricts access. Sedimentation into roadside ditches.	Protective barricades (i.e., snow fence, sediment fence, jersey barriers, and straw bales) were erected around trenches and excavations during construction activities.
Utility Crossings	Throughout Construction	Minimum distance separation from buried or above-ground services may not provide sufficient room within a road right-of-way (R.O.W.) for the installation of a gas pipeline; damage to utilities may inconvenience landowners.	In accordance with Enbridge Policies and Procedures, locates were obtained prior to any excavation work. Warning signs posted in vicinity of overhead power lines.

Table 1
Construction Effects and Mitigation Measures (Continued)

Activity	Duration	Potential Effect	Mitigation Measures
Spills	Throughout Construction	Contamination of air, soil, surface water or ground water. Inconvenience to landowners and public	As required, contractor had spill containment kits at the project site. There was one reportable spill during construction which was a spill of 100 L of bentonite (directional drilling fluid). Sediment fencing and straw bales were used to contain bentonite. Vacuum truck cleaned up bentonite. Bentonite did not affect any watercourses or storm sewers.
Hydrostatic Testing	February 1, 2013 February 8, 2013	Uncontrolled discharge of water could cause erosion, sedimentation and contamination of surface water supplies.	A contractor was obtained to bring water to site using water trucks; water was discharged over land using filter bags and Simcoe County was notified. No significant adverse environmental effects resulted from the hydrostatic testing.
Pipe Energizing	February 20, 2013	Inconvenience and/or negative health effects to nearby landowners and the public.	Energizing was completed in accordance with Enbridge Policies and Procedures.
Clean-Up	Throughout Construction	Restores the pipeline easement to pre-construction conditions.	Clean up activities were conducted in accordance with the Enbridge Construction and Maintenance Manual. Remaining restoration of the road allowance along the route to be completed by Enbridge. Results of the clean-up program will be examined again in the spring of 2014.

6.0 Residual Issues

Overall, construction activities were carried out with a high level of respect for the environment.

Since portions of the pipeline Right-Of-Way (R.O.W) are located within the road allowance, there may, in the future, be some degradation caused by vehicular traffic and littering that is not a result of construction.

There are two unresolved issues that remain at the time of completion of this report (July 2013) for the Angus Pipeline Reinforcement Project. These issues will need to be addressed prior to the final monitoring of the pipeline route.

6.1 Restoration and Revegetation

Vegetation has re-established along portions of the road allowance where it was disturbed due to construction. However, a significant number of sections will require additional restoration and revegetation, these include road allowances on the north side of County Road 21 in the vicinity of these addresses:

- 4095 County Road 21
- 5907 County Road 21
- 5057 County Road 21
- 5162 County Road 21
- 5628 County Road 21
- 6070 County Road 21

These sections will require monitoring over the next year to identify the success of revegetation efforts and to identify areas that will require further efforts.

6.2 Soil Settlement and Erosion

Erosion, evidenced by rills and gullies in the bank and ditch of the road allowance has occurred along several sections of the north side of County Road 21 (refer to locations in Section 5.1). This will be addressed by regrading the areas, covering the areas with topsoil followed by the appropriate seed mix and covered with coir erosion control matting.

7.0 Summary

This Interim Post-Construction Environmental Monitoring Report has been prepared in accordance with the OEB Decision Docket No.EB-2012-0013. It documents construction and clean-up/restoration activities conducted in the early summer of 2013, as construction crews waited for improved weather before seeding. In general, measures implemented during construction and clean-up have been moderately successful. Two outstanding issues will be addressed in the Final Post-Construction Environmental Monitoring Report that will be prepared in the spring of 2014. This report will document continued remediation activities if needed, and address additional issues that may arise.

APPENDIX A
PIPELINE ROUTE MAP

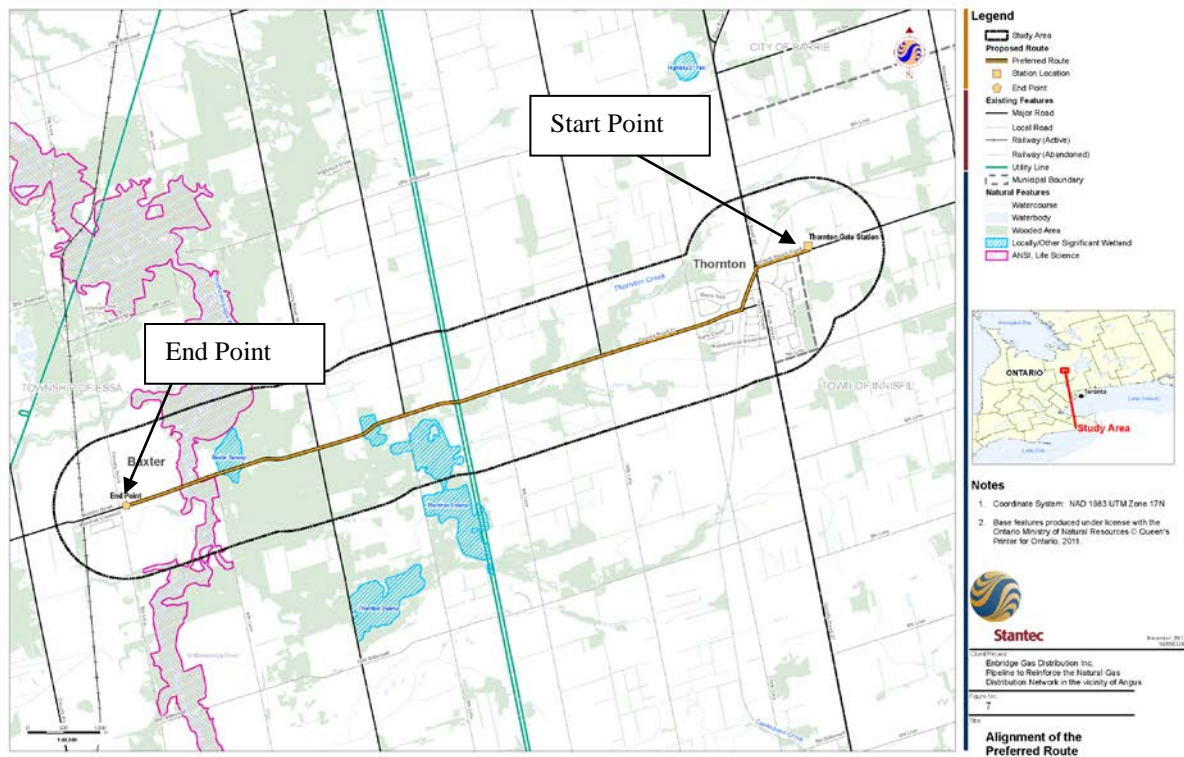


Figure 1: Pipeline Route Map

APPENDIX B

PHOTO LOG (May 6, 2013)



Photo 1: 214 County Road 21 looking west



Photo 2: 214 County Road 21 looking east



Photo 3: 5162 County Road 21 looking north; ground disturbance resulted from gas service installation, not pipeline construction



Photo 4: 5057 County Road 21 looking north



Photo 5: 4095 County Road 21 looking west



Photo 6: 5907 County Road 21 looking west



Photo 7: 5628 County Road 21 looking east; ground disturbance resulted from gas service installation, not pipeline construction



Photo 8: 6070 County Road 21 looking northeast



Photo 9: East of 8th Line looking southeast



Photo 10: Tie-in Pit on Trans-Canada Trail looking north



Photo 11: Tie-in Pit on Trans-Canada Trail looking north

APPENDIX C
COMPLAINT LOG

Table 2
Summary of Complaints and Actions Taken

Date	Description	Actions Taken & Underlying Cause
January 7, 2013	Resident drainage concerns following driveway and ditch restoration.	Drainage pattern was confirmed to be altered during restoration. EGD committed to the homeowner to correct the drainage. Optimal solution was determined to be the installation of a culvert at the homeowners driveway (previously no culvert existed). Simcoe County was contacted and approval and specifications were received for a culvert installation at the homeowners driveway to resolve the issue. Homeowner was notified that the culvert would be installed during spring restoration activities in order to ensure the frost settlement would not impact the installation. During spring restoration the ditch line was improved, the approved culvert was installed, and the driveway resurfaced to both the homeowner and Simcoe County's satisfaction. Concern considered resolved.
January 14, 2013	Resident expressed concerns that the ditch line was restored 0.3 m higher than the pre-existing ditch line which was now causing a blockage of their driveway culvert.	Review of the site conditions indicated that the driveway was crossed using Horizontal Directional Drilling and therefore no changes were made to the ditch line surrounding the driveway. Further investigation of the driveway indicated that no culvert existed at this address. Homeowner was informed that because no culvert existed and the ditch line was not altered there would be no further restoration activities in this area. Simcoe County was notified and agreed with the restoration response. No further contact from the homeowner was received.
January 15, 2013	Contractor notified EGD that a resident complaint was received regarding the width of their driveway restoration. Homeowner requested a wider driveway installation.	The open cut driveway in question was restored to the full width of the pre-existing culvert. A meeting with Simcoe County indicated that installing wider culverts are not permitted without a permit application. The addition of riprap to the driveway assisted in preventing any washout of the restored driveway. Concern considered resolved.
February 2, 2013	Resident concerns with drainage on property (email forwarded to EGD by Simcoe County)	Met with resident to discuss. Homeowner indicated some drainage issues have existed since the road elevation was raised, but that our construction activities created further issues. Homeowner requested a swale to be restored east of the driveway to prevent run off from being directed down the driveway. Crews attended site and a swale was reinstated to assist in drainage away from the driveway. Concern considered resolved.