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June 2, 2014

## **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-2011-0323 Alliston Pipeline Reinforcement Project Conditions of Approval - Final Monitoring Report\_\_\_\_\_

In the Ontario Energy Board's (the "Board") Decision issued on January 23, 2012, the Conditions of Approval required Enbridge to file the Final Monitoring Report for the project 15 months after the in-service date. The final in-service date for the Alliston Reinforcement Pipeline Project was December 19, 2012 which requires Enbridge to file the Final Monitoring Report by May 20, 2014.

On April 9, 2014, Enbridge filed a letter with the Board requesting an extension to the submission date for the final monitoring report for the project until June 30, 2014. Due to the extraordinary winter many of the areas at that time were still covered in snow when we were attempting to access the area for inspection.

Enbridge has completed the assessment of the area and enclosed please find the final monitoring report for the project.

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.2

ALLISTON PIPELINE REINFORCEMENT PROJECT EB-2011-0323

Prepared by Enbridge Gas Distribution Inc. May 29, 2014

#### 1.0 Introduction

In January of 2012 the Ontario Energy Board ("Board") under docket number EB-2011-0323 granted Enbridge Gas Distribution Inc. ("Enbridge") Leave to Construct and operate an nominal pipe size (NPS) 8 (8-inch outer diameter) natural gas pipeline to reinforce the existing natural gas distribution network in Alliston 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 socioeconomic impacts.

Report Title	Conducted by:	<u>Date</u>
Alliston Pipeline Reinforcement Project	Dillon Consulting Limited	May 2011
Environmental and Cumulative Effects		
Assessment		
The 2011 Stage 1 Archaeological	D.R. Poulton and	May 2011
Assessment of the Proposed Alliston	Associates Inc.	
Reinforcement Project, Town of New		
Tecumseh, Town of Bradford West		
Gwillimbury, Town of Innisfil and		
Township of Essa Simcoe County,		
Ontario		
Alliston Pipeline Reinforcement Project	Dillon Consulting Ltd.	July 2011
Tree Inventory and Condition		
Assessment		
The 2011 Stage 2 Archaeological	D.R. Poulton and	August 2011
Assessment of the Proposed Alliston	Associates Inc.	
Reinforcement Project, Town of New		
Tecumseh, Town of Bradford West		
Gwillimbury, Town of Innisfil and		
Township of Essa. Simcoe County,		
Ontario		
Geotechnical Investigation Proposed	Golder Associates	November 2011
HDD Crossings Towns of Cookstown,		
New Tecumseh and Essa, Ontario		

Construction of the Alliston Reinforcement Pipeline Project began on July 26, 2012 and was completed and energized on December 19, 2012.

This report has been prepared in accordance with Board EB-2011-0323 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 May 23, 2014. Prior to construction there were many activities conducted related to this pipeline project, including environmental assessments, public meetings, archaeological assessments, Board hearings, and background studies. This report will not review all these items in detail, but will summarize that all disturbed or impacted areas due to construction activities will be revisited to ensure they are restored to their original state or better and that Enbridge does not foresee any future issues related to this construction.

## 2.0 Project Description

The pipeline project was constructed to reinforce the existing natural gas distribution network in the community of Alliston, New Tecumseh. The reinforcement is necessary to meet the needs of residential, commercial and industrial customers in the township of New Tecumseh and surrounding area.

The pipeline originates at the Enbridge Cookstown Gate Station located at 4174 15<sup>th</sup> Line Road in Cookstown, Ontario. The pipeline proceeds west along Victoria Street to Dufferin Street where it turns north. It continues to Highway 89 where it turns west along the south side of Highway 89. It terminates at the southwest corner of Highway 58 and Sideroad 10. The pipeline is approximately 9 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 onsite. 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 Board;
- 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.

# 4.0 Construction Effects and Mitigation Measures

Construction effects and mitigation measures which were implemented to minimize the potential effects from the construction of the Alliston 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

<u>Construction Effects and Mitigation Measures</u>

Activity	Duration	Potential Effect	Mitigation Measures
Vegetation Cover	Throughout Construction (July 26, 2012 to December 19, 2012)	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 Cookstown Creek and several smaller watercourses were completed by directional drill. Watercourse crossing permits were obtained from the Nottawasaga Valley Conservation Authority. Sediment fencing installed to prevent sedimentation and siltation. Geotechnical assessment completed to assist in developing crossing profile.
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 10th Sideroad, Wesson Road, 15th Sideroad, 20th Sideroad, Highway 27 and Cook Street were completed by directional drill or open cut. Warning signs and barricades set up to increase visibility and prevent public access.

Table 1

<u>Construction Effects and Mitigation Measures (Continued)</u>

Activity	Duration	Potential Effect	Mitigation Measures
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.	D.R. Poulton & Associates Limited conducted Stage 1 and 2 Archaeological Assessments prior to construction to identify areas of high potential for artifacts. Construction within limits of ROW will minimize potential for encountering archaeological artifacts. No
Trenching and Excavation	Throughout Construction	Open trenches present a hazard to vehicular and pedestrian traffic. Restricts access. Sedimentation into roadside ditches.	artifacts were encountered.  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.
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 were no reportable spills during construction.
Hydrostatic Testing	October 26, 2012	Disruption of water supply to landowners or emergency services. Uncontrolled discharge of water could cause erosion, sedimentation and contamination of surface water supplies.	Permission from the Town of Innisfil was obtained to take water from a municipal fire hydrant; over land discharge permission was obtained from the land owner. No significant adverse environmental effects resulted from the hydrostatic testing and dewatering procedures.
Pipe Energizing	December 19, 2012	Inconvenience and/or negative health effects to nearby landowners and the public.	Energizing was completed in accordance with Enbridge Policies and Procedures.

Table 1

<u>Construction Effects and Mitigation Measures (Continued)</u>

Clean-Up	Throughout	Restores the pipeline	Clean-up activities were
	Construction	easement to pre-construction	conducted in accordance with
		conditions.	the Enbridge Construction
			and Maintenance Manual.
			Restoration of the road
			allowance along the route
			was completed by Enbridge.
			Results of the clean-up
			program were examined in
			the spring of 2014.

### 5.0 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.

The Interim Monitoring Report filed with the Board in May 2013 identified a significant number of outstanding issues related to vegetation, restoration and revegetation, erosion control devices, watercourse crossings and soil settlement and erosion.

There are numerous trees along Victoria Street West within the road allowance where the pipeline was installed. Portions of this road allowance and easement were open cut. The trees were monitored and appear to be in good health. Enbridge will continue to periodically monitor these trees but it does not foresee future problems. Note: tagged trees along the south side of Victoria St. E., East of Cook Street were removed by a subdivision developer after our pipe was installed. Enbridge and the contractor did not harm these trees.

As listed in the interim report, the following sections of road allowance required additional restoration and revegetation:

- Highway 89, east and west of 10th Sideline
- 5856 Highway 89 (south side of roadway)
- Highway 89, approximately 800 meters (m) east of 10<sup>th</sup> Sideline
- Highway 89, approximately 1030 m east of 10<sup>th</sup> Sideline
- · Highway 89, east of Wesson Road
- Highway 89, at 8<sup>th</sup> Line (south side of roadway)
- Highway 89, approximately 430 m east of 9<sup>th</sup> Line
- Highway 89, west of 20<sup>th</sup> Sideroad
- Highway 89, approximately 350 m west of 11<sup>th</sup> Line
- Highway 89, approximately 110 m west of 11<sup>th</sup> Line

Vegetation has reestablished along the road allowances in some of the areas mentioned above where it was disturbed due to construction. Due to the extreme winter weather, full vegetative growth was delayed. These areas will require further restoration which will involve additional application of topsoil and seed. This will be completed by the end of September, 2014.

Erosion control devices (i.e. silt fence, straw bales, coir logs) were installed to control erosion and sedimentation at areas of concern, including at the Cookstown Creek crossing. These have all been removed.

Soil settlement, evidenced by sinkholes, occurred in the vicinity of the valve stem located on the south side of Highway 89, at 5856 Highway 89. Regrading, along with revegetation was undertaken to restore the appropriate grade. Due to the extreme winter weather, full vegetative growth was delayed. Additional topsoil and seed with erosion control matting will be added to this location by the end of September, 2014.

Erosion, evidenced by rills and gullies in the bank and ditch of the road allowance, occurred along several sections of the south side of Highway 89 (refer to locations in Section 5.0). Consultation with an environmental consultant was undertaken to develop a solution to restore the road allowance (including bank and ditches). This restoration

included putting down topsoil and seed followed by erosion control matting. Gabion stones were also placed in a few stretches of ditch along highway 89 in order to define the ditch line and prevent future erosion and sedimentation. Vegetation has reestablished along some areas but due to the extreme winter, some vegetative growth was delayed. These areas will have additional topsoil, seed and erosion control matting applied to ensure further vegetative growth and to limit erosion and sedimentation. Some areas will also require further Gabion stone placement.

A few additional areas of concern were identified and require gabion stone placement, topsoil, seed and/or erosion control matting in order to promote further vegetative growth or to limit erosion and sedimentation:

- Highway 89 just west of Simcoe County Road 56
- Highway 89, approximately 1130 m east of 10th Sideline
- Highway 89, just west of 9<sup>th</sup> Line
- North and south side of roadway at 4174 15<sup>th</sup> Line Road

#### **6.0 Landowner Comments**

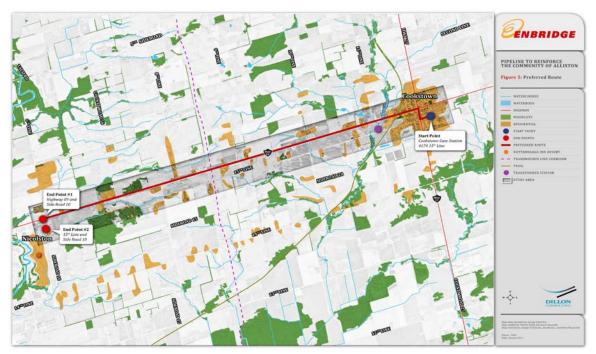
There are no additional complaints further to what was reported in the interim report.

All complaints have been resolved.

### 7.0 Summary

This Final Post-Construction Environmental Monitoring Report has been prepared in accordance with the Board Decision docket number EB-2011-0323. It documents construction and clean-up activities conducted in the summer/fall of 2012/2013. Measures implemented during construction and clean-up have been successful but some areas require additional restoration (due to the extreme winter) involving application of topsoil, seed, erosion control matting and/or gabion stones to ensure further vegetative growth. This will be completed by the end of September, 2014. An addendum report will be submitted in the fall of 2014 to document the restoration efforts that will be completed in the spring/summer of 2014.

# APPENDIX A PIPELINE ROUTE MAP



**Figure 1: Alliston Pipeline Reinforcement Project** 

**APPENDIX B** 

PHOTO LOG (May 23, 2014)



Photo 1: Highway 89, looking west from 10<sup>th</sup> Sideline



Photo 2: Highway 89, looking east from 10<sup>th</sup> Sideline



Photo 3: 5856 Highway 89 (south side of roadway)



Photo 4: Highway 89, looking east from 10<sup>th</sup> Sideline



Photo 5: Highway 89 looking west towards 10<sup>th</sup> Sideline



Photo 6: Highway 89 looking east towards Wesson Road



Photo 7: Highway 89, looking west towards 10<sup>th</sup> Sideline



Photo 8: Highway 89, east of Wesson Road looking west



Photo 9: Highway 89 and Simcoe County Road 56, looking west



Photo 10: Highway 89 and Simcoe County Road 56, looking east



Photo 11: Highway 89 and 15<sup>th</sup> Sideroad, looking west



Photo 12: Highway 89 and 15<sup>th</sup> Sideroad, looking east



Photo 13: Highway 89 in the vicinity of 8<sup>th</sup> Line, looking west



Photo 14: Highway 89 in the vicinity of 9<sup>th</sup> Line, looking west



Photo 15: South side of Highway 89 in the vicinity of 9th Line, looking north



Photo 16: Highway 89, looking east towards 20th Sideroad



Photo 17: Highway 89, looking east towards 20th Sideroad



Photo 18: Highway 89 west of 11<sup>th</sup> Line



Photo 19: South side of 4174 15<sup>th</sup> Line Road, across from Cookstown Gate Station, looking east



Photo 20: North side of 4174 15<sup>th</sup> Line at Cookstown Gate Station

# APPENDIX C LANDOWNER COMMENTS

# **Landowner Comments**

Time and Date of Complaint	Substance of Complaint	Actions Taken and Rationale
March 13, 2013, 8:30 am	The Chief Inspector received a complaint from TWD (MTO's contractor) that water was backing up on to a field just east of the east driveway, immediately west of Sideroad 20.	Through discussion with the landowner, it was claimed there was a culvert crossing Highway 89. Upon field investigation by EGD's contractor an unknown, unidentified MTO culvert was found buried and filled with sediment. The culvert was unknown at the time of construction and EGD's contractor did not protect it during construction. Since the culvert is now exposed, the culvert is now flowing water. This will be monitored to ensure drainage continues and an extension to culvert will be installed if needed.
		Culvert continues to allow flow and drainage and no further issues are expected.
March 18, 2013, 4:39 pm	Land owner Mr. Robert Regoris claimed a roughed-in driveway existed at a parcel of land west of 20 <sup>th</sup> Sideroad (no street address) prior to construction and wanted it restored to pre-construction condition to assist with the sale of the land for development. This was not an MTO approved driveway and MTO requested the driveway not be restored. There is another driveway to the property to the east on a more level section of Hwy 89. Mr. Regoris stated if the driveway was not restored, he would take all legal action to have it restored for selling features of the property.	MTO and TDW were consulted. As instructed by MTO and TWD, EGD's contractor will install a non-MTO standard driveway. The driveway will be in better condition than original but not at MTO standard. A 20-24 ft culvert will be added in the ditch and covered with gravel to restore the driveway and allow for drainage through the culvert.  Non-MTO standard driveway was installed and no further issues are expected.