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May 11, 2012

VIA COURIER

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, 26th Floor
Toronto, ON M4P 1E4

Re: Enbridge Gas Distribution Inc. ("Enbridge")
Ontario Energy Board ("Board") Docket No.: EB-2009-0187
Pipeline to Serve the Proposed York Energy Centre Power Plant
Conditions of Approval - Monitoring Reports

In the Board's Decision issued on April 5, 2010, the Conditions of Approval required Enbridge to file an interim monitoring report for the project 6 months after the in-service date. The final in-service date for the project was November 13, 2011 and requires Enbridge to file the interim monitoring report with the Board by May 13, 2012.

Enclosed please find the interim monitoring report for the project

In Sections 3.2 of Conditions of Approval in the Board's Decision, the Board orders that Enbridge file a final monitoring report within 15 months of the in-service date of the project which would make the report due to the Board on February 13, 2013. As it will be difficult to conduct a proper assessment during winter months and verify that there are no outstanding issues related to the project, Enbridge is requesting an extension to the filing date for the final monitoring report until May 2013.

If you have any questions, please contact the undersigned.

Yours truly,

{ORIGINAL SIGNED}

Bonnie Jean Adams
Regulatory Coordinator

cc: Neil McKay, Manager, Natural Gas Applications, Ontario Energy Board
Zora Crnojacki, OPCC Chair

Pipeline to Serve York Energy Centre LP Interim Post Construction Environmental Monitoring Report

EB-2009-0187

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

Prepared by:
Stantec Consulting Ltd.
300-675 Cochrane Drive, West Tower
Markham, ON L3R 0B8

May 11, 2012

Project No.: 160950255

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1 INTRODUCTION

1.1 Background

Enbridge Gas Distribution Inc. ("Enbridge") filed an application with the Ontario Energy Board ("the Board") on September 3, 2009, 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 approximately 16.7 km of 406 mm (16 inch) diameter extra high pressure steel pipeline to deliver natural gas to the York Energy Centre LP ("YEC"), a proposed natural gas electrical generation facility ("the Project"). The Board assigned the application file number EB-2009-0187. The pipeline originated from Enbridge's Schomberg Gate Station located at 4955 Lloydtown-Aurora Road in Pottageville, Ontario and terminated at YEC's facility located at 18781 Dufferin Street in the Township of King, Ontario.

In support of the leave for construction and the application to the Board, Enbridge filed an Environmental Assessment ("EA"; Jacques Whitford Ltd., 2009) indicating a preferred route selection, identifying potential impacts resulting from construction, and prepared mitigative measures to minimize environmental and socio-economic impacts. In April of 2010, the Board granted Enbridge approval to construct and operate the pipeline to supply natural gas to the YEC facility along the preferred route.

Enbridge had subsequently completed construction of the Project in the Township of King and the pipeline was energized on November 13, 2011. As part of the Conditions of Approval, Enbridge was required to file an Interim Monitoring Report to the Board within six months of the in-service date.

1.2 Scope of the Interim Monitoring Report

This report has been prepared in accordance with the Board EB-2009-0187 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 (i.e., Enbridge shall construct the facilities and restore the land in accordance with its application and the evidence filed in EB- 2009-0187 except as modified by this Order and these Conditions of Approval) 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 is limited to items that have been identified prior to May 5, 2012. Items addressed after this date will be identified in the *Final Monitoring Report*. This report will summarize actual construction procedures and identify any significant deviations from proposed construction activities.

2 MONITORING

2.1 Environmental Inspection and Monitoring

Enbridge contracted Stantec Consulting Ltd. ("Stantec") to assist in establishing an environmental inspection and monitoring program ensuring that all environmental terms and conditions, and other commitments identified in the EA were complied with during all phases of construction of the pipeline. Stantec mobilized qualified environmental inspectors to maintain compliance with all approval documentation and best industry practices. The Environmental Inspector was present for full-time inspection during all key construction activities (watercourse crossings, hydrostatic test discharge, etc.) The responsibilities of the Environmental Inspector included 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 EA 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, etc.
- When required, act as a liaison between Enbridge and regulatory agencies.
- Identify and provide direction to remediate any unexpected environmental occurrences (i.e., failure of environmental protection measures, damage to protection measures resulting from unexpected storms, resident/landowner concerns, etc.).
- 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 undertaken 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.

2.2 Water Well Monitoring

To document groundwater quality and groundwater levels, nearby well owners were given the opportunity to participate in a water well monitoring program. In addition to the open program, select residences were targeted along the right-of-way ("ROW") that are supplied by dug wells as they may be at greater risk of well interference. Wells were also selected to ensure adequate spatial distribution and representation across the entire pipeline route.

Monitoring was completed with the owners' permission and 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.

The water quality samples were collected from a raw water tap and placed directly into laboratory supplied sample containers after purging for about 10 minutes. The samples were not field filtered and were submitted for analysis of general chemistry, turbidity, metals and bacteriological. Individual analytical results were presented to each resident following each sampling event with the available water level data included in the second letter.

Dataloggers were to be removed after monitoring was completed; however, currently two dataloggers were not retrievable. Stantec is working with the well contractor to remove the two outstanding dataloggers.

3 ENVIRONMENTAL PROTECTION MEASURES

Many of the potential significant environmental effects for the pipeline were avoided during routing by locating the pipeline within or adjacent to previously disturbed road ROW's. Other potential adverse environmental effects of constructing and operating were further reduced by implementing specific construction methodologies and timing construction of certain segments of the pipeline to minimize further potential impacts and effects as a result of the Project.

Potential environmental impacts to wetlands and watercourses (fisheries resources) were reduced by isolating sensitive features along the proposed route and mitigating effects on provincially significant and unevaluated wetlands and the nine (9) identified sensitive watercourses (WC1 to WC9) located along the ROW (Figure 1). Potential impacts to these wetlands and watercourses may have included surface soil erosion adjacent the watercourses, trench slumping, and in extreme cases, sedimentation or other releases of deleterious substances. Crossings of these sensitive features were completed by method of HDD to minimize effects. Watercourse crossings with sensitive fisheries concerns were crossed during the summer months whenever possible when fish were not anticipated to be migrating or spawning and when the water flow was generally anticipated to be low. Some other potential terrestrial impacts were also reduced by utilizing an HDD installation method to avoid most other sensitive areas identified in the EA and limit the overall need for reclamation on exposed surfaces. A summary of the issues supplemental to those anticipated in the EA during construction and the associated resolutions is contained in Table 3-1.

By utilizing HDD as a crossing method for all watercourses, the potential for sedimentation in the watercourse, stream bed disturbance, impacts to normal streamflow, and generally uninterrupted fish passage was either minimized or maintained. The HDD method of installation as outlined in the EA was also effective in mitigating impacts at wetland crossings.

Table 3-1 Summary of Environmental Issues and the Resolutions

Activity	Duration	Issue	Resolution
Topsoil Stripping	Duration of Project	Due to area restrictions along the line and the location of the pipeline within the ditch, topsoil was not stripped separately from spoil and isolated for final reclamation.	• 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 establishment of vegetation. • Maintained temporary sediment and erosion protection until soil have been stabilized and re-vegetated.
HDD	Duration of Project	Drilling mud releases (19 reported to the Spills Action Centre; primarily in Pottageville) believed to be a result of the granular heterogenous material used for road construction and grading purposes.	• Followed the mitigation measures as outlined in the Project EA. • Berms and/or straw bale check-dams wrapped in filter cloth were installed downslope from the drill entry and anticipated exit points to contain the release of any drilling mud. • Scheduled the HDD of sensitive watercourse crossings to avoid sensitive spawning and/or migration periods. • A drilling mud release contingency plan was discussed and implemented prior to the start of any HDD. • Installed appropriate environmental protection measures (silt fence, straw bales, sand bags, etc.) around all sensitive features prior to initiating drilling (Photo 1 and 6; Appendix B). • Ensured a minimum of one vacuum truck was available to all times during drilling for immediate response. Additional vacuum trucks were mobilized to sites at sensitive watercourses as required. • Only bentonite based drilling mud was utilized during drilling, without the use of any additional additives. • Silt fence, straw-bales wrapped in filter cloth or sand bag check dams were installed in non-fisheries watercourses paralleling pipeline prior to initiating drilling (Photo 7; Appendix B). • Environmental inspectors and a labourer supplied by the Contractor were on-site full-time for the sensitive watercourse crossings.
Reclamation	Duration of Project	No available seed bank in spoil/topsoil.	• 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 establishment of vegetation. Application of mulch or hydroseed was determined by whether area was utilized as a residential lawn.
Slope Stabilization	Duration of Project	Spring freshet in 2012 resulted in erosion and subsequent sedimentation on steep slopes within the ditchline on various areas along the ROW.	• Installed erosion control blankets in the bottom of the ditchline to prevent erosion during high velocity flows and storm events.

Table 3-1 Summary of Environmental Issues and the Resolutions

Activity	Duration	Issue	Resolution
Hydrostatic Testing	October/ November, 2011	De-watering of pipeline upon completion of hydrostatic test.	• Baseline water samples were collected prior to de-watering and compared against water samples of discharged water to monitor any potential effects on aquatic resources as a result of de-watering (see Section 5.2 for results).

3.1 Horizontal Directional Drill

The primary concern regarding potential effects of pipeline construction on fish and fish habitat is species viability and potential impacts during spawning/nursery activities. Potential construction effects during HDD include siltation and sedimentation during a surface release of drilling mud, erosion of stream banks and disruption of downstream flow and migration patterns. Extensive mitigation measures were taken to minimize effects during HDD crossings by reducing the potential for sedimentation and contamination of the watercourse through a release of 'inadvertent returns' of drilling mud within the bed and/or banks of the watercourse. The release of drilling mud along the flood plain parallel to the banks of the watercourse was mitigated through preparation and installation of protection measures prior to the onset of drilling while potential releases within the bed and banks of the watercourse were mitigated through release preparedness and having the appropriate spill response materials and other resources (vacuum trucks) readily available at all times during drilling.

Prior to drilling, relief pits were excavated on either one or both sides of the sensitive watercourses outside of the bed and backs to reduce pressure and the potential for a resulting drilling release within the watercourse by encouraging an easier pathway for the drilling mud to travel to surface (Photo 1; Appendix B). This approach was most successful when the pipeline crossed the watercourses directly perpendicular and did not parallel the watercourse for any substantial period (>20 m). In areas where the HDD paralleled and crossed directly underneath the watercourse along the ditchline of the road for a distance greater than approximately 20 m, the potential for a fluid release into the watercourse increased and reduced the usefulness of relief pits located adjacent the watercourse (i.e., WC6 and a tributary to WC8).

In areas where watercourses along the ditch-line travelled parallel to HDD and were not determined to be fish bearing, setting up a series for check dams using either sand bags or straw-bales wrapped in filter cloth prior to drilling proved to be successful in isolating and containing the release (Photo 7; Appendix B). In any fish bearing watercourse where a release occurred, silt fence, straw-bales, sandbags, etc., were placed in-water with provision not to obstruct the free movement of water and fish around the protection measure (Photos 2 to 5; Appendix B). All releases that were determined to have a potential impact to the environment

and/or on private property were reported to the MOE's Spills Action Centre immediately after discovery. During HDD activities, some in-stream release of drilling mud were observed in all watercourses crossed except WC6, west of Keele Street and WC9, west of the YEC.

To prevent potential hazardous petroleum products or other deleterious substances from entering a watercourse, storage of these materials were kept at > 100 m from the watercourse where possible. Temporary erosion and sediment control measures, silt fence, straw bales (etc.) were installed prior to drilling where necessary and maintained until 100% of all work within or near a watercourse including restoration has been completed and stabilized to limit erosion.

Despite the amount of drilling mud released during the project, HDD bored crossings likely reduced the potential for sedimentation in a watercourse while eliminating disturbances to the bank within the riparian zone and the streambed. In-stream work was avoided where possible with the exception of responding to HDD releases which occurred within some of the sensitive watercourses. Follow-up fisheries assessments were conducted at the watercourses with the greatest release and sensitivities which determined that effects are not likely to be significant and residual effects were not anticipated as a result of the drilling fluid releases.

All drilling mud releases that occurred in the road ditches and on private property were cleaned-up immediately after the release using a vacuum truck to collect the mud. Silt fence and straw-bales surrounded the releases (where necessary) to limit migration and release points were monitored during drilling. Landowners were informed of all releases immediately and reclamation (if required) commenced as soon as practical after the completion of the drilling. Generally in 2012, there was very limited evidence of upland releases along the ROW or within private property.

The only drilling mud release on private property that disrupted a business activity occurred on April 27, 2011, when drilling mud surfaced at the Esso service station at 4545 Lloydtown-Aurora Road. Enbridge took immediate steps to report, contain and clean-up the spill. Subsequent investigation by Golder and Associates in conjunction with the landowner's agents revealed that the impact was not extensive or unsafe. An out of court settlement was reached for the cost of the restoration.

3.2 Reclamation

Reclamation and re-vegetation of the ROW was progressive and on-going with the installation of the pipeline. The slopes 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 stabilize against erosion. Seeded areas were protected with appropriate stabilizing

techniques; however, additional erosion control blankets would have further reduced the potential for erosion in ditchlines identified at some locations in spring 2012 (see Section 4.4). Where installed, sediment control fencing was monitored and maintained throughout construction, restoration and reclamation until vegetative cover was fully established. Some erosion protection measures are still required to be left in-place until final vegetation has established to properly stabilize the soil and limit erosion.

During wet times, construction activities were generally limited whenever possible to reduce potential impacts from the movement of heavy machinery causing rutting in the soil and by increasing exposure of sedimentation on local watercourses from erosion and runoff.

3.3 Summary

Significant sections of the pipeline were drilled using HDD to avoid sensitive features (wetlands, watercourse), roads, etc. Approximately half (54%) of the pipeline was drilled and was not installed using traditional trenching techniques. Although there were19 drilling mud releases reported to the MOE Spills Action Centre along the pipeline, general areas where HDD was the predominant method for installation (e.g., Pottageville) reclamation is generally complete and additional follow-up was limited as there was not much exposed soil to erode. For those releases which did occur directly within watercourses, a summary of impacts for the releases investigated in Pottageville determined that impacts to the watercourses are considered to be short-term and as a result, the fish communities are anticipated to recover quickly with the benthic macroinvertebrate community returning to pre-release levels within one year. In addition, stormwater management is not present within the roadside drainage ditches and as a result, the biological communities are anticipated to be adjusted to periodic and short-term sediment releases.

Impacts to WC5 where sensitive habitats (i.e., gravel riffles that may be used for spawning) were not affected are likely limited to behavioural impacts in fish, such as avoidance, and benthic macroinvertebrate drift. As the release in WC5 occurred over a period of approximately 20 minutes, impacts to WC5 were considered to be short-term and, as a result, fish communities are anticipated to recover quickly with the benthic macroinvertebrate community returning to pre-release levels within a few months.

Reclamation of the construction area was ongoing, progressive throughout construction with good success in most areas of the Project; however, due to the timing of some reclamation (fall, 2011), vegetation could not be sufficiently established at some locations to fully prevent erosion from occurring on some higher gradient slopes (Photos 8, 9, 16 and 17; Appendix B). Erosion control blankets were utilized at some areas of the pipeline where normally appropriate. In

other areas, including the west side of Jane Street south of Davis Drive, landowners were concerned with the use of erosion control blankets affecting grass cutting by getting entangled in equipment and thus was not utilized. An appropriate site-specific targeted reclamation plan and follow-up monitoring will be generated and implemented in spring 2012 to restore any exposed areas to erosion.

In addition, due to the topsoil not being stripped and isolated from the spoil, the existing natural seedbank was not typically available within the topsoil to complement any seeding program conducted during reclamation. In areas where soil was exposed to surface flows erosion and downslope sedimentation was evident in some of the drainage ditches where the pipeline was installed. By not isolating and salvaging topsoil, surface soil texture may have also been altered and resulted in changes of water infiltration rates and the water holding capacity of the surface soil.

4 ISSUES AND RESOLUTIONS

During the installation of the pipeline, resident concerns were logged and 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 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. However, some outstanding public concerns and restoration measures are still outstanding during 2012 including some final restoration of the site.

4.1 By-Law Non-Compliance.

During the installation of the pipeline Enbridge had one by-law non-compliance issue which was a result of being required to work on a Sunday during the drying/energization process which created sufficient noise to break the noise by-law. Enbridge reported the excessive noise to the Municipality (King); however, the Municipality did not receive any complaints and did not take any formal action against Enbridge. Prior to the drying process local residents Enbridge delivered notices, alerting residents of the drying process before it was conducted.

4.2 Public Inquiries and Concerns

Enbridge provided residents and businesses along the Preferred Route with a construction communication procedure with every reasonable effort made by Enbridge to address concerns and maintain good landowner relations. For a log of detailed landowner concerns, follow-up actions/response and the status for each inquiry or concerns, see Appendix C.

A total of forty-seven (47) comments were received from residents, businesses, and institutions. For all inquiries or concerns expressed from residents during construction of the pipeline, every effort was made by Enbridge to address concerns and maintain good landowner relations in an expeditious and courteous manner. Currently, four (4) of the 47 concerns remain unresolved, two of which have only recently been logged (April, 2012), with Enbridge working to address all remaining situations.

4.3 Water Well Monitoring Program

A summary of the pre- and post-construction results will be prepared for Enbridge in 2012 after the two datalogger concerns have been addressed which will conclude the water well monitoring program. All other monitoring requirements have been completed. Based on available monitoring data, no negative environmental effects were interpreted due to pipeline installation for the wells included in the monitoring program.

4.4 Outstanding Restoration

Final restoration of the surface disturbances are recommended to properly address any outstanding environmental issues prior to completing reclamation. Upon stabilization of soils through vegetation to inhibit erosion, all silt fence, sand bags and other non-organic materials should be removed from the site and be disposed of at an appropriate facility. Some areas exhibiting moderate erosion on slopes (i.e., Jane Street and Dufferin Street, various locations), erosion control matting/blankets should be installed to limit further potential for erosion and subsequent sedimentation down-gradient. Stantec proposes the following mitigation and reclamation measures to stabilize exposed areas:

1. On the east ditch of Jane St., replace the eroded mulch and eroded areas, and cover with erosion control blankets properly anchored to limit the potential for the mulch to get washed away and or erosion.
2. Drainage ditches into WC6 should be hydroseeded and covered with erosion control blankets where appropriate to encourage adequate vegetation establishment (Photo 14; Appendix B).
3. Steep slope on west side of Dufferin Street at the open-cut area, directly north of Davis Drive, re-apply hydroseed where required appropriate and place erosion control blankets on exposed steep areas (Photo 12; Appendix B).
4. East side of Dufferin Street directly north of Miller's Side Road additional erosion control blankets should be installed along the bottom of the exposed drainage ditch to further limit the potential for further insizing and limit the sediment loading into the provincially significant wetland at the bottom of the slope. It is also recommended that sediment loading downslope of the exposed slope be removed from the culvert and replaced on the slope as required.
5. Sloughing/soil creep on small area of exposed backslope north of Miller's Side Road on Dufferin Street should be investigated and seeded as appropriate.
6. Primarily a result of the completion of the installation of the pipeline during late fall conditions, not conducive to adequate germination to fully stabilize slopes, there are various additional areas where vegetation establishment should be augmented by hydro seeding to prevent erosion on exposed slopes as the primary concern for the reclamation of the pipeline (e.g., Photo 13; Appendix B). Stantec recommends that all previously disturbed areas be appropriately vegetated and meet pre-construction conditions.

5 ENVIRONMENTAL IMPACTS

Communication during construction related meetings between Enbridge staff and the Contractor, Environmental Inspector(s) and landowners and agencies, and/or their representatives, were conducted to ensure full understanding of responsibilities to reduce the potential for significant adverse environmental effects as a result of the installation of the pipeline.

5.1 Horizontal Directional Drill

A review of impacts on fisheries resources specifically in Pottageville (WC 1 to 3) and WC5 as a result of drilling under sensitive features is not anticipated to physically alter the channel morphology as they are not of sufficient depth to alter habitat (i.e., infill of pool habitats).

Evidence of bentonite deposits were not observed in the faster flowing habitats (i.e., runs and pools) and, as a result, impacts to these habitats are not anticipated. Furthermore, research has indicated that a minor accumulation of sediment in watercourses is typically removed during high flow events, such as storms or the spring freshet (Anderson et al. 1996; Reid and Anderson 1999). As a result, the bentonite deposits are likely to be removed during the proceeding storm event. As bentonite deposits were not observed in potential spawning habitat (i.e., gravel riffles) during the assessments, these habitats were not likely to have been impacted by the bentonite releases.

The short-term release of bentonite into WC5 is anticipated to have minor impacts on the benthic macroinvertebrate community. These communities are able to withstand short-term increases in suspended sediment and typically recover over short periods following a sediment release. Although sediment releases are known to increase benthic drift, the benthic macroinvertebrate community typically can re-colonize impacted habitats through various sources, including drift from upstream habitats and newly laid eggs from adults inhabiting the area (Robertson et al. 2006; Anderson et al. 1996). As a result, it is anticipated that the benthic macroinvertebrate community will return to pre-disturbance levels within a year.

5.2 Hydrostatic Test Discharge

During dewatering for the hydrostatic test, the Provincial Water Quality Objective (PWQO) for phosphorus was exceeded during both sampling events on October 11, 2011; however, the Provincial guideline is frequently exceeded in many watersheds and values were only slightly above the guideline. Minor exceedences are rarely associated with any effects commonly associated with phosphorus such as algae growth.

Of note is that the canal was re-opened after dredging which may have resulted in higher concentrations of parameters in the receiving canal due to the disturbance of the substrate. The dredging could result in a delay of aquatic species re-inhabiting the area around the discharge location. The baseline sample was collected prior to the dredging of the canal which occurred in September 2011. Discharging of hydrostatic test water into the canal occurred shortly after dredging was completed and the canal was re-opened.

Apart from an increase in the concentrations of cobalt, copper, iron and nickel all other parameters are similar to baseline conditions or close to the Federal and Provincial aquatic guidelines. Only four metals (Co, Cu, Fe, Ni) were above background levels, therefore it is unlikely that these elevations were the result of a residual effect of substrate disturbance due to dredging. If this was the case, other metals would be elevated as well. Because the hydrostatic testing was conducted on a metal pipe, it is probable that this was the source of elevated metals. It is not uncommon to see elevated levels of certain metals, especially iron, resulting from hydrostatic testing of metal pipes. Typically after 24hr the concentrations would decrease. Furthermore, the sampling was conducted in the plume of the discharge therefore there was little opportunity for these metals to be assimilated into the canal water. Aquatic organisms can tolerate relatively high concentrations of iron, particularly if it is not sustained.

5.3 Summary

The majority of impacts associated with construction of the proposed pipeline and interaction with the construction of other projects were managed appropriately based on the recommendations outlined in the EA (Section 6.0). Noise and dust disturbances were localized and were largely dissipated through mitigation. Once reclamation is complete in 2012, noise and dust will no longer be issues relating to the cumulative project. Vegetation removal, including loss of terrestrial habitat, is also considered to have no cumulative significance since no fragmentation of woodlots was a result of the Project.

Monitoring, contingency planning and appropriate environmental protection measures were important components to reduce the overall potential for residual and cumulative effects of the Project ensuring mitigation measures were effective in both the short and long term. During the installation of the pipeline, promptly addressing concerns raised by residents, as well as identifying potential impacts during the pre-construction consulting, limited the overall effects from 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 all outstanding issues identified in this Interim 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.

6 CLOSURE

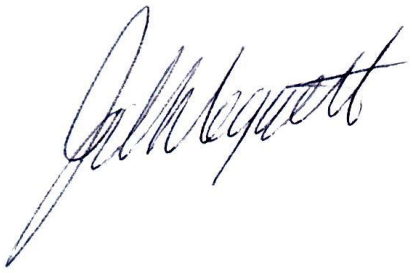
This Report has been prepared by Stantec Consulting Ltd. for the sole benefit of Enbridge, and may not be used by any third party without the express written consent of Enbridge. Any use which a third party makes of this Report is the responsibility of such third party.

The data presented in this Report are in accordance with our 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 us 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.

Respectfully Submitted,

STANTEC CONSULTING LTD.



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CR/AL/mcs

APPENDIX A

Site Location

PIPELINE TO SERVE THE
PRISTINE YORK ENERGY CENTRE

Study Area Features

N

York Energy Centre LP
18781 Dufferin Street

Schomberg Gate Station
4955 Lloydtown - Aurora Rd

Holland Marsh Lowlands

Ansnorveldt Wetland Complex

Happy Valley Infiltration Area

Happy Valley

West Holland River

South Canal

Canal Rd

County Rd 27

Hwy 27

Main St

Weston Rd

Jane St

Keele St

Dufferin St

Bathurst St

Yonge St

Hwy 11 — Hwy 51

Green Lane W

Hwy 9

Mulock Dr

Lloydtown Aurora Rd

Wellington St W

- HSF Watercourse Crossing
- Start Point
- End Point
- Preferred Route
- Road
- Highway
- Existing Pipeline
- Utility
- Watercourse
- Regional Study Area
- Unevaluated Wetland
- Environmentally Sensitive Area
- Area of Natural and Scientific Interest
- Environmentally Sensitive Area and Area of Natural and Scientific Interest
- Wetland
- Waterbody
- City/Town

Greenbelt Area

- Oak Ridges Moraine
- Greenbelt Countryside Area
- Greenbelt Natural Heritage System

0 500 1,000 1,500

Metres - 1:50,000

\\01609\Active\160950255\planning\drawing\MXD\160950255_Site_Location.mxd

PREPARED FOR

ENBRIDGE

MB QC ON USA Area of Interest

PREPARED BY

Stantec

FIGURE NO.

1

Last Modified: May 8, 2012 By: S.Allen

APPENDIX B

Photo Log

Pipeline to Serve York Energy Centre LP Interim Post Construction Environmental Monitoring Report

Photo Log
May 11, 2012

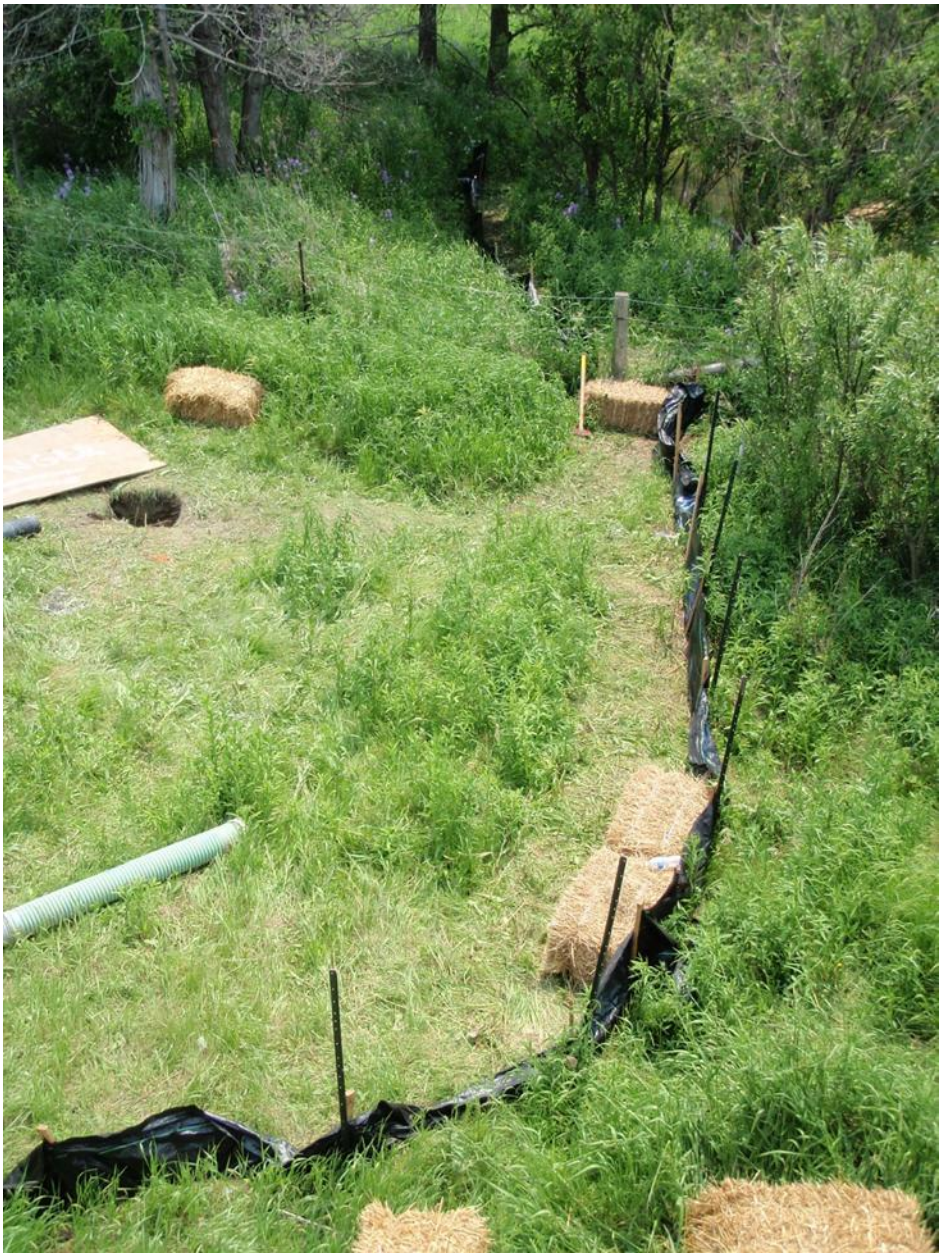

Photo 1 **Erosion protection measures (silt fence and relief pit) setup up parallel to watercourse prior to drilling (June 7, 2011)**

Photo 2 Drilling fluid release observed into WC5 (June 7, 2011)

Photo 3 Close-up of drilling fluid release within the channel bed at WC5 (June 7, 2011)

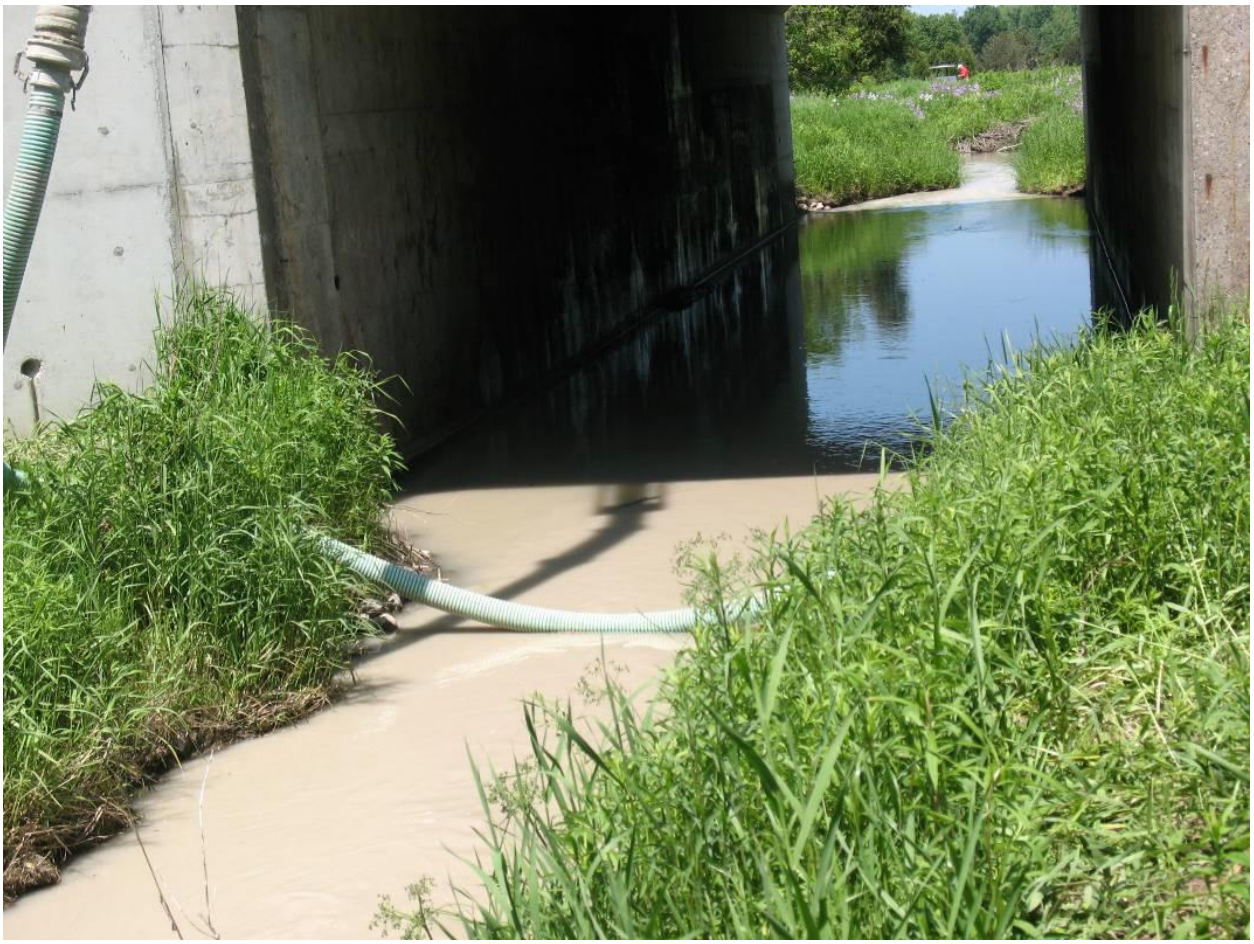

Photo 4 View of WC5 downstream immediately after release (June 7, 2011)

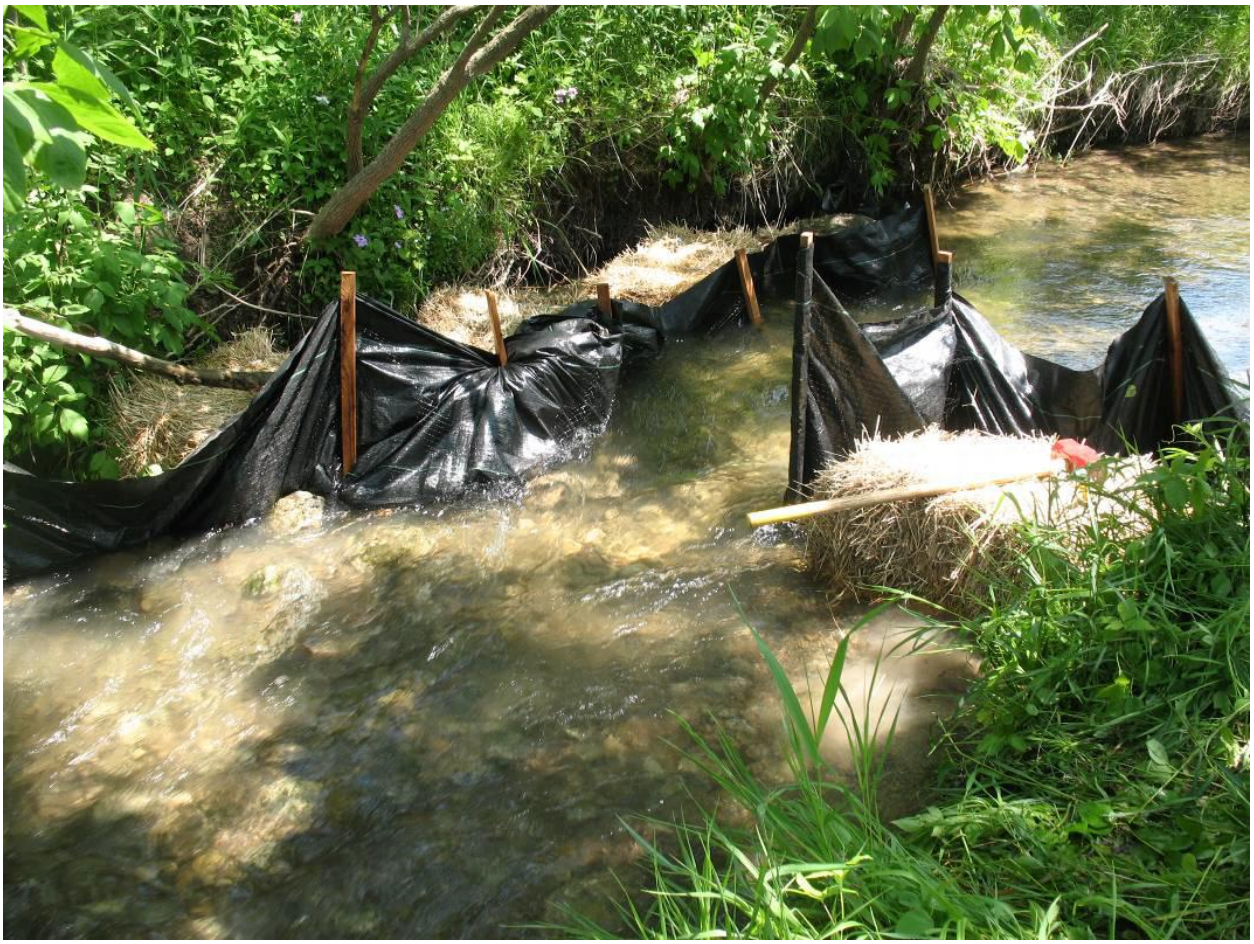

Photo 5 **In-stream protection measures installed immediately after release to limit exposure of watercourse to drilling mud (June 7, 2011)**

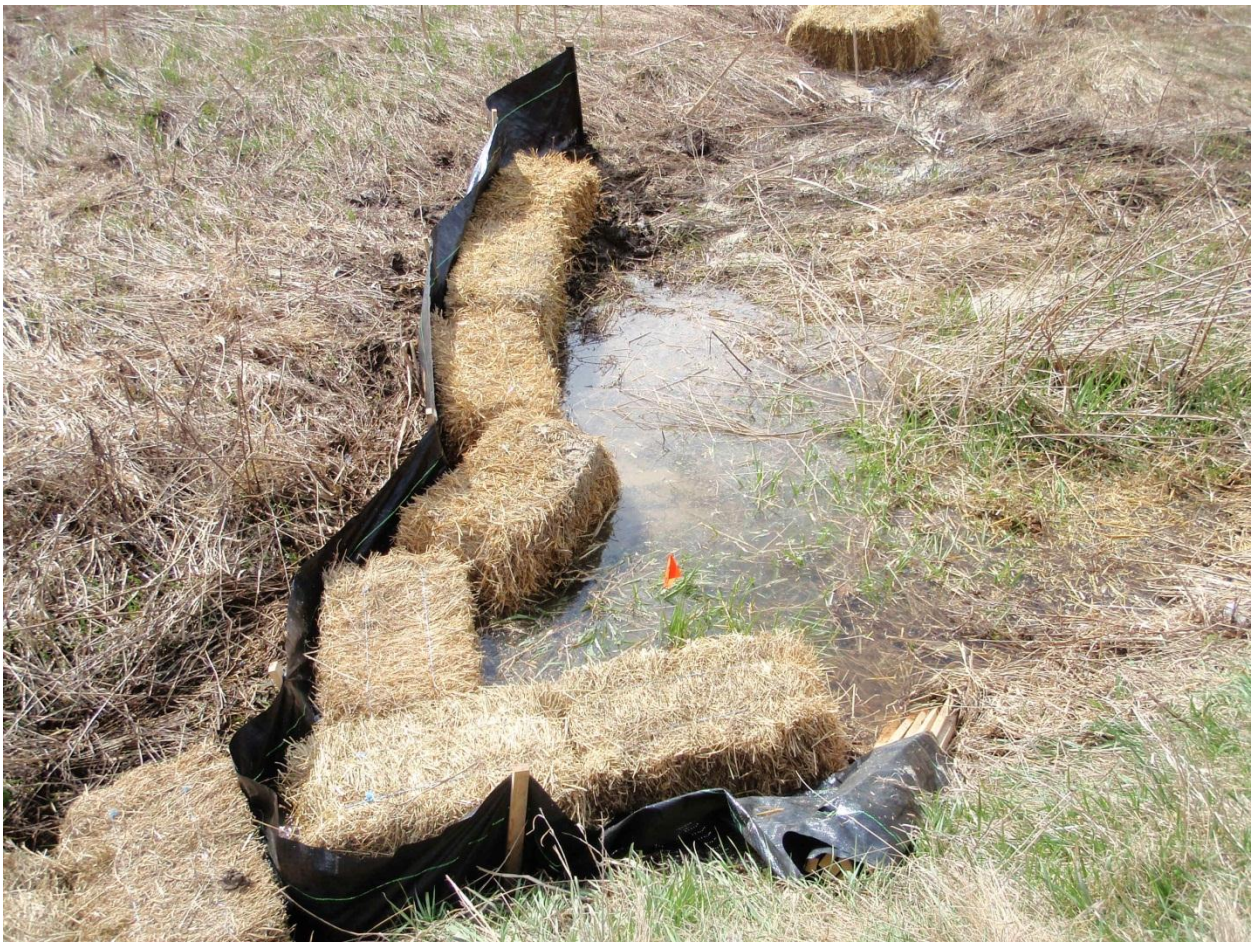

Photo 6 Sediment barrier adjacent watercourse installed prior to drilling (May 5, 2011)

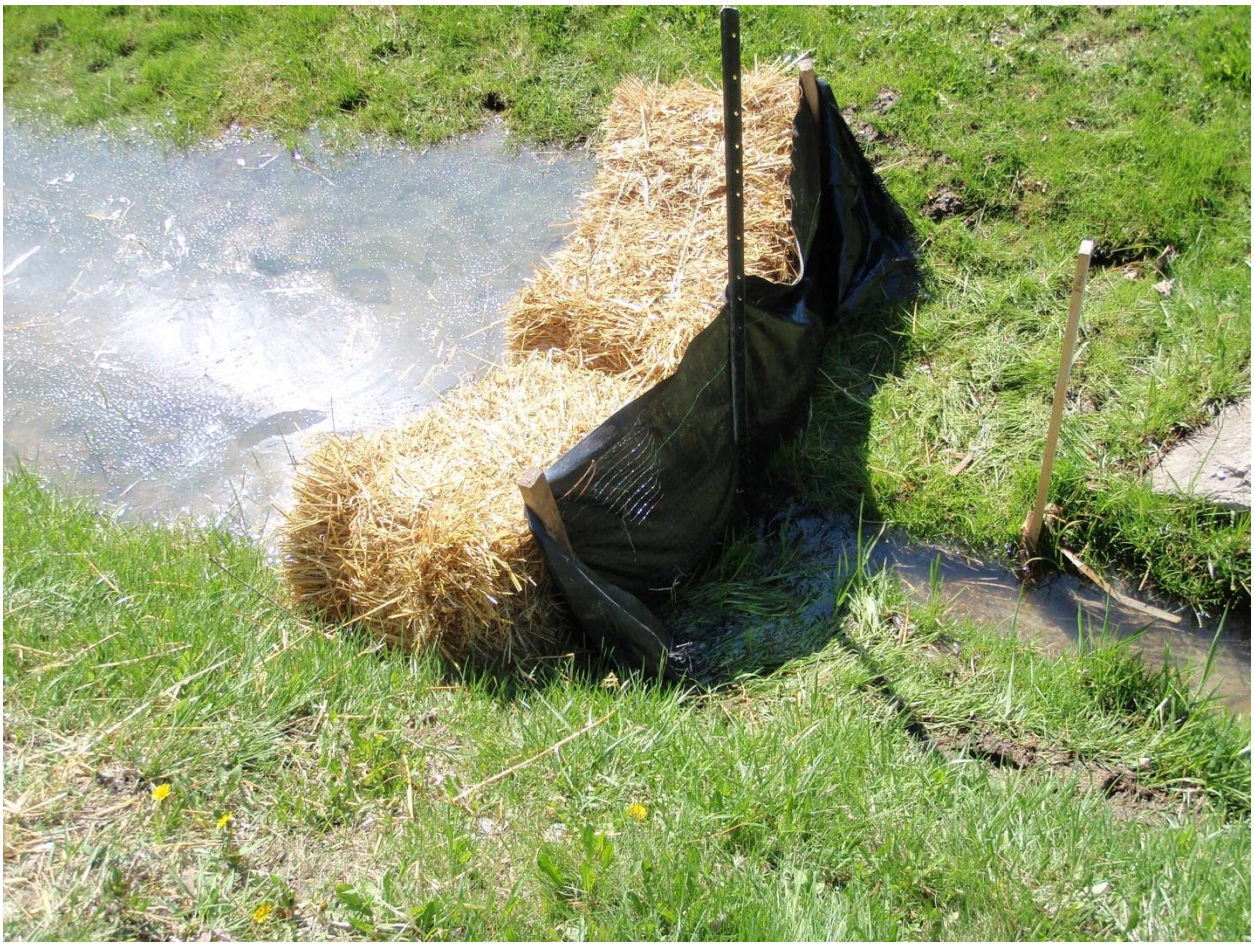

Photo 7 **Check-dam installed in non-fisheries watercourse prior to drilling (drainage ditch) (May 7, 2011)**

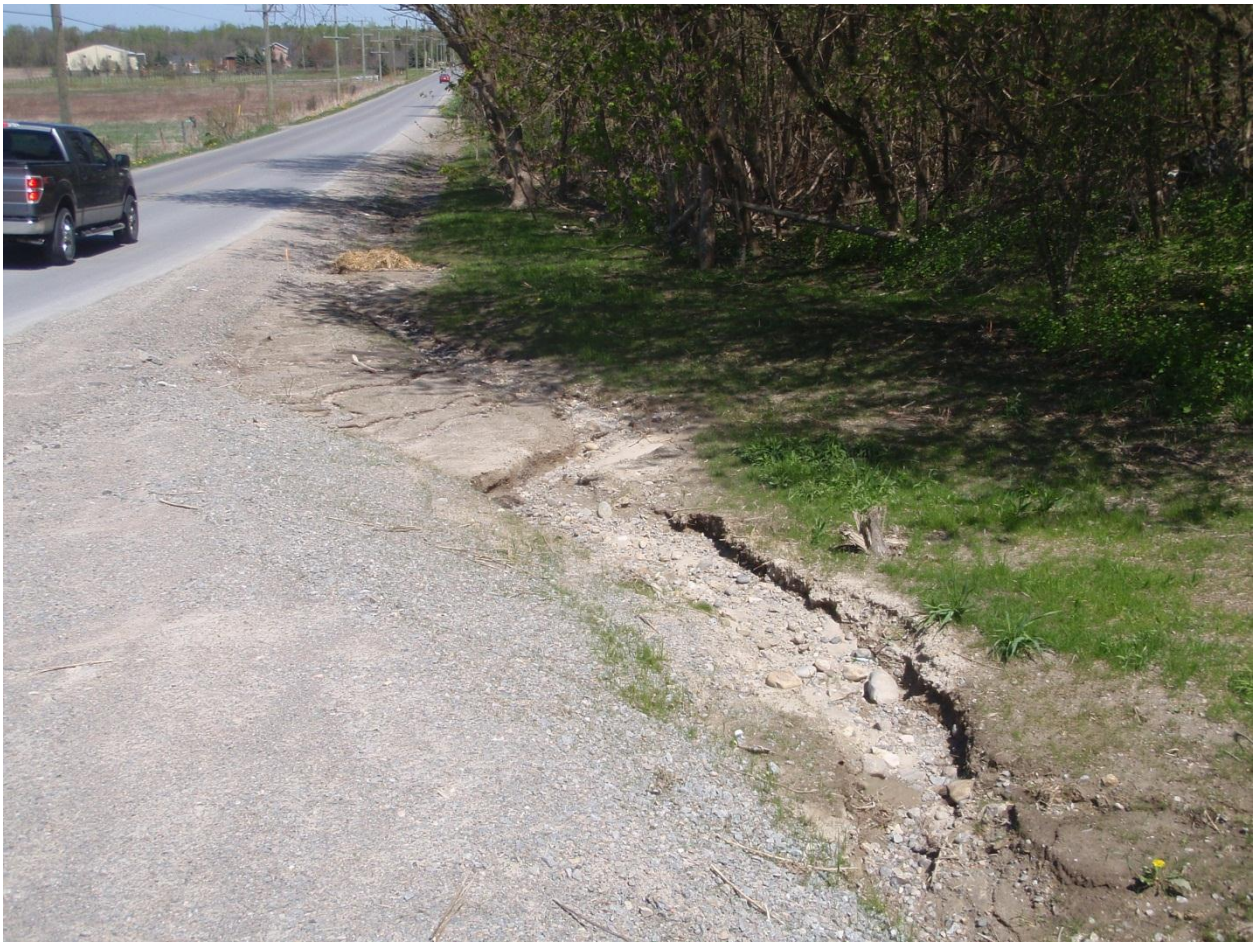

Photo 8 **Surface erosion (gullying) on ditch line on slope located on the east side of Dufferin Street, directly north of Miller's Side Road (May 5, 2012)**

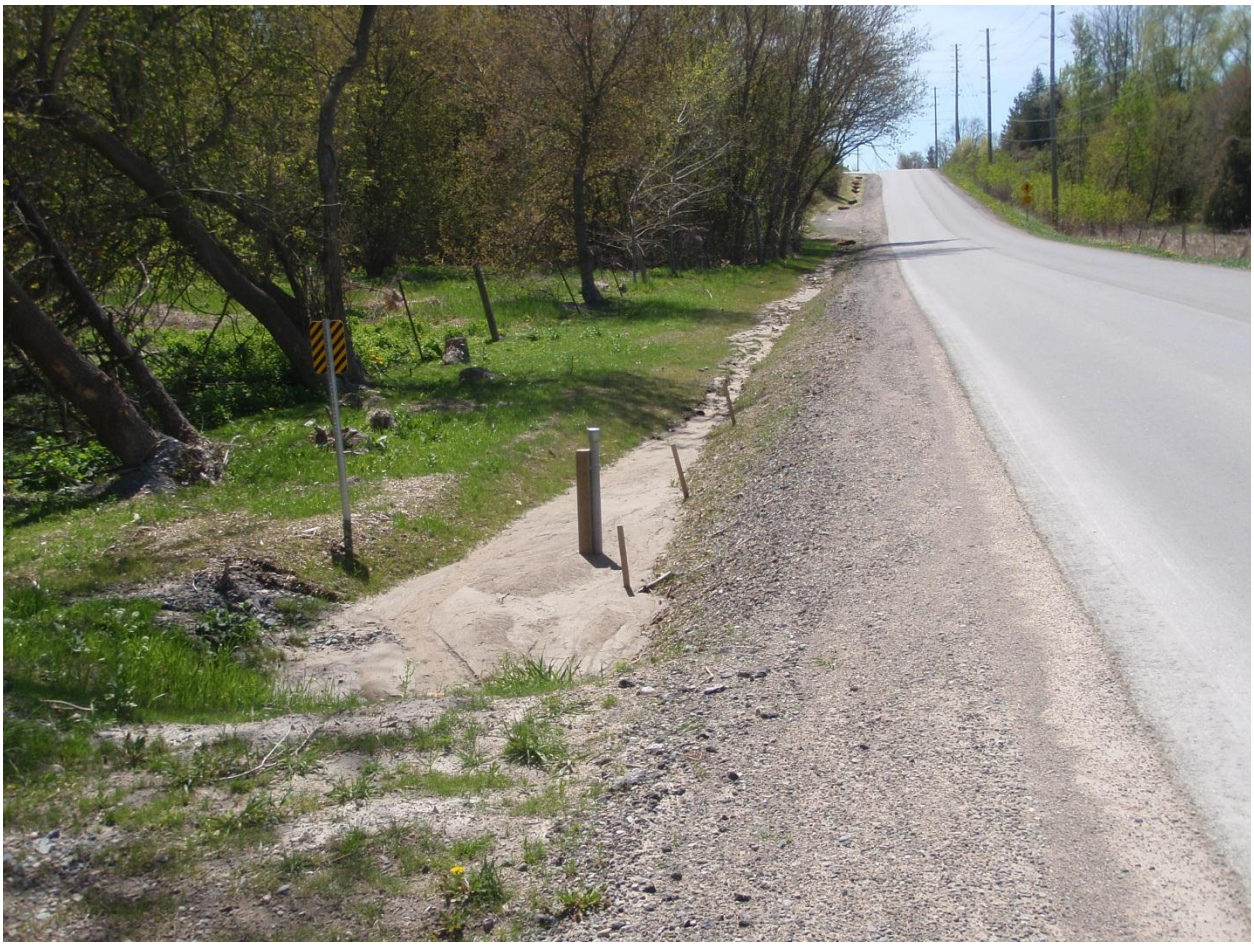

Photo 9 **Sediment deposits located downgradient of gullying identified in Photo 9 (May 5, 2012)**

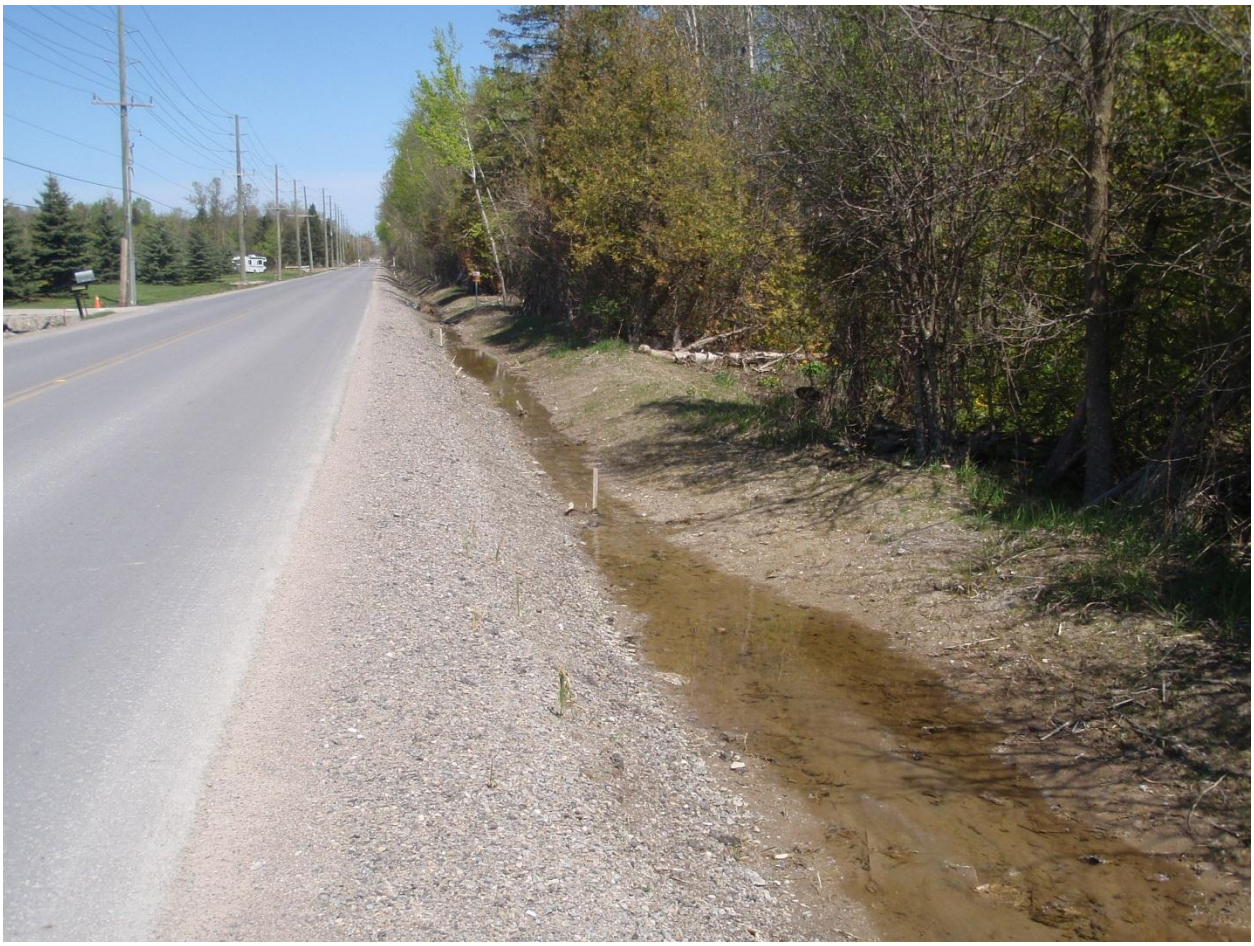

Photo 10 **Poor vegetation establishment over excavated ditchline on the east side of Dufferin Street, South of the YEC (May 5, 2012)**

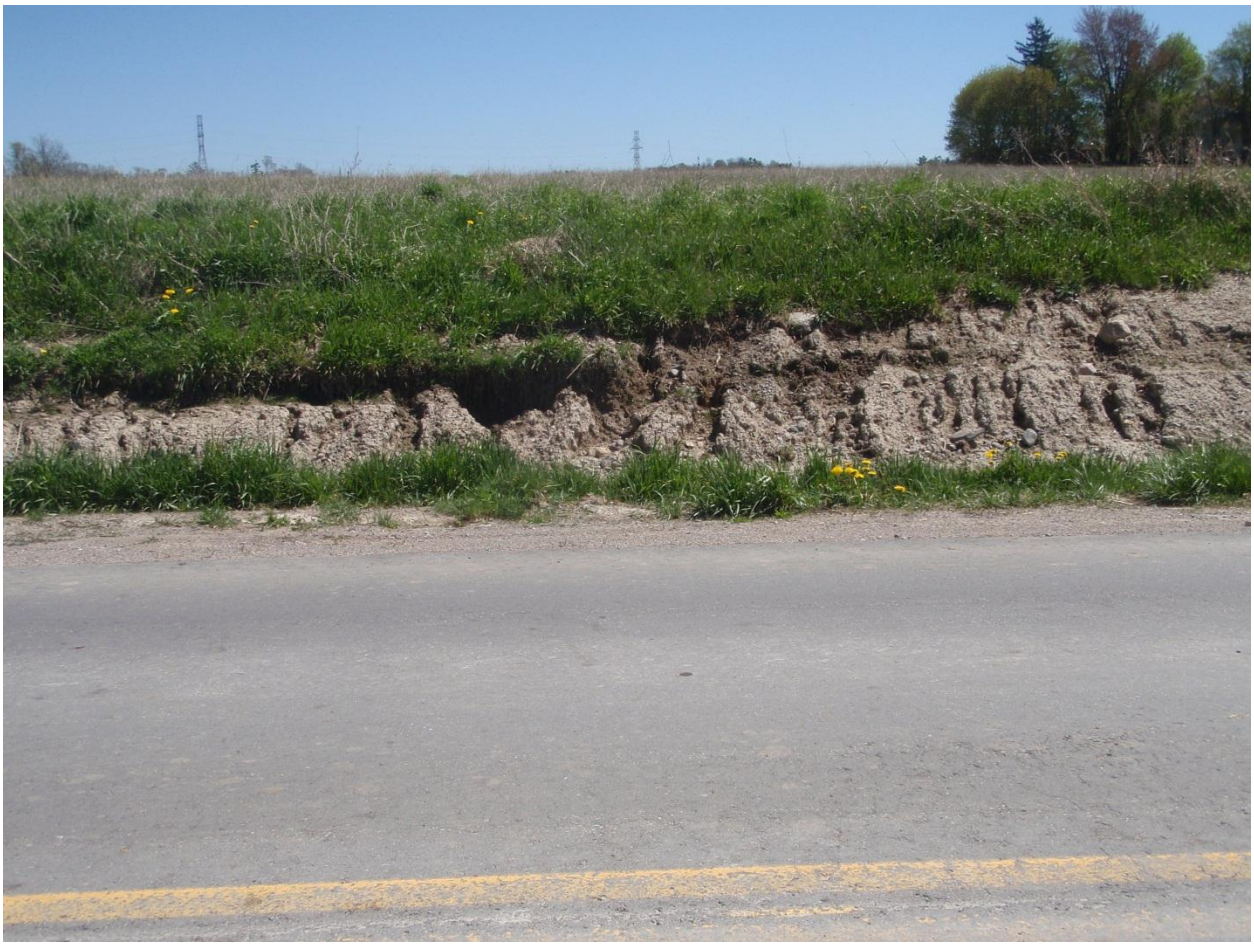

Photo 11 **Slumping of road backslope on the east side of Dufferin Street, directly south of Miller's Side Road (May 5, 2012)**

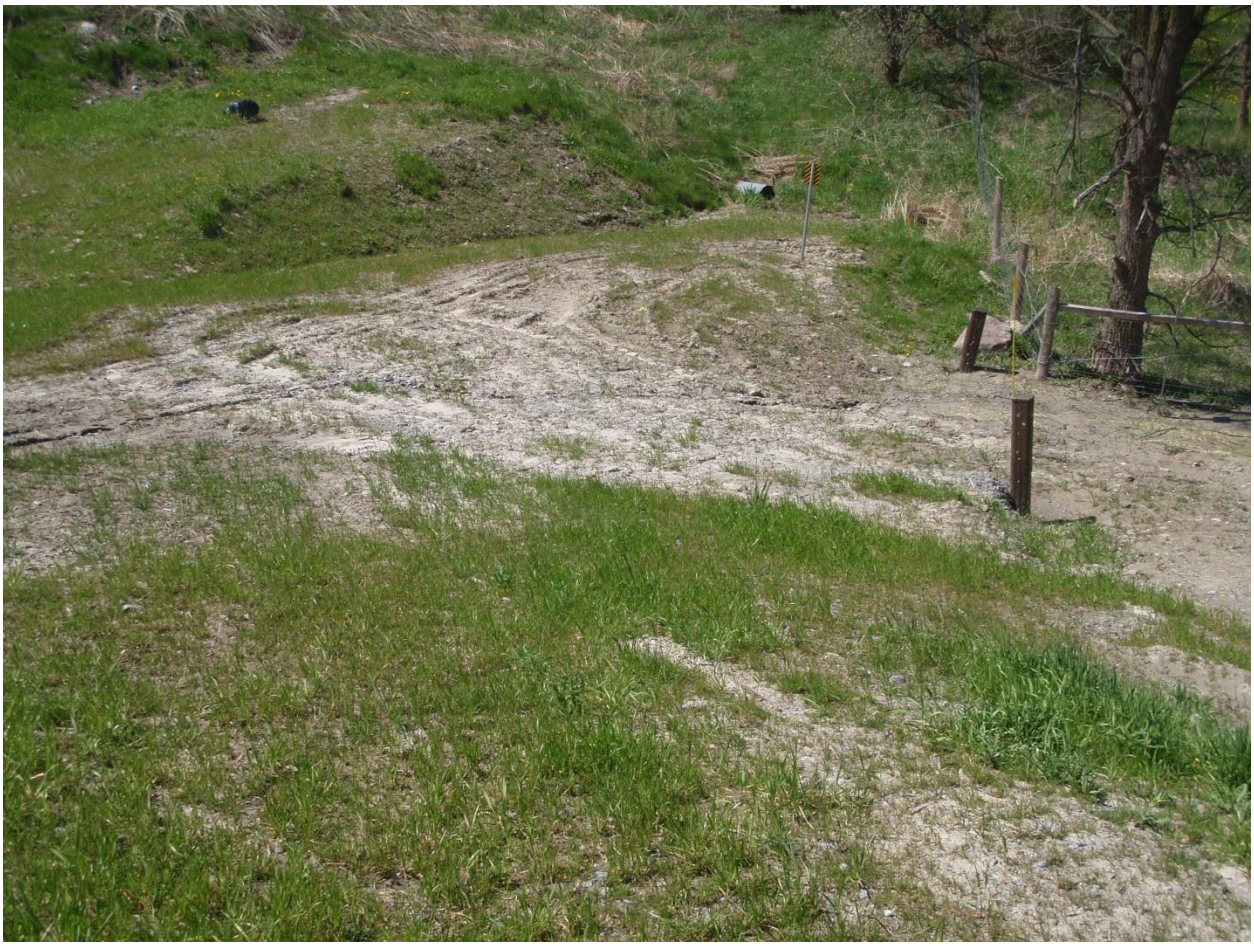

Photo 12 **Poor vegetation establishment on a steep embankment on the the northwest intersection of the Davis Drive and Dufferin Street intersection (May 5, 2012)**

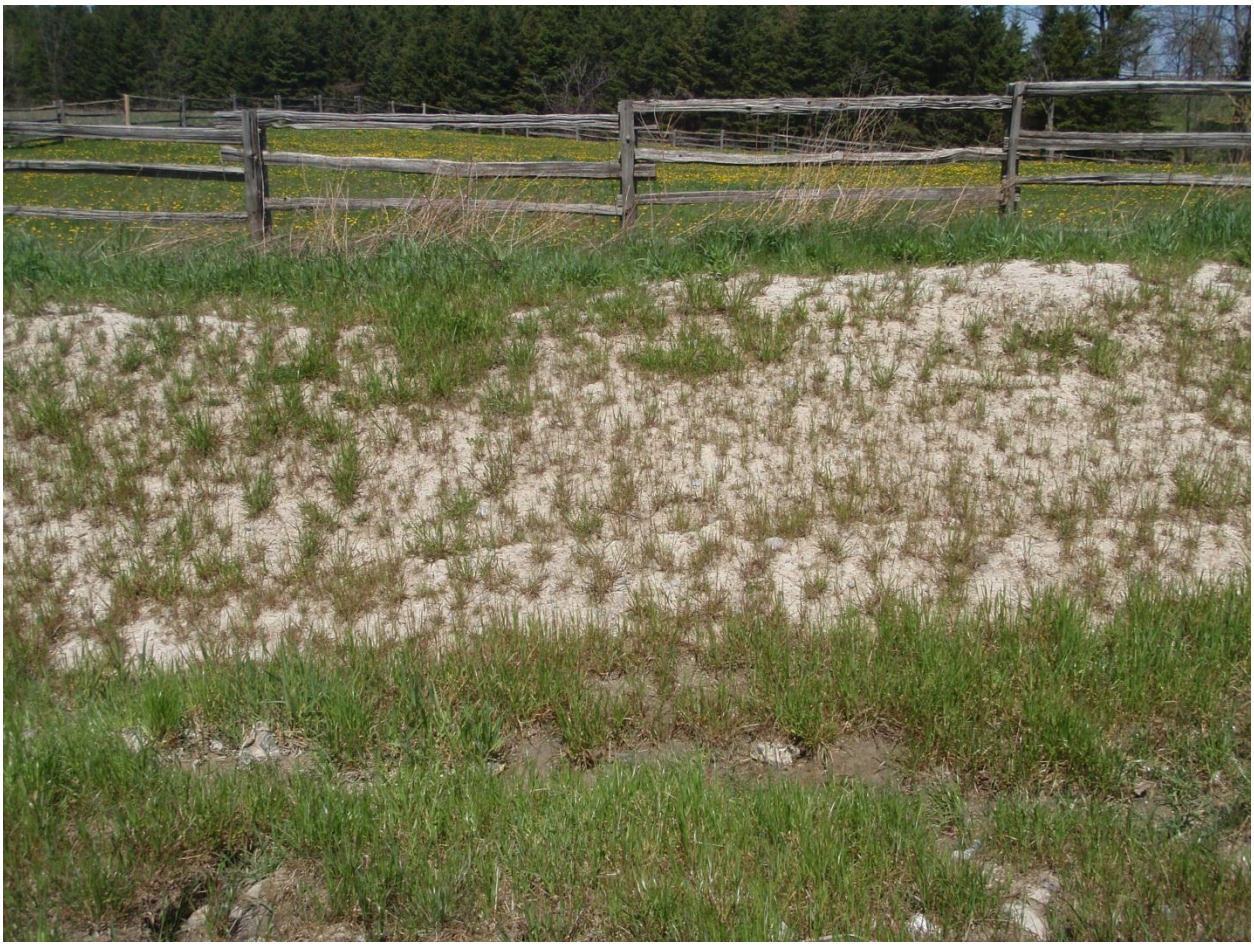

Photo 13 **Poor vegetation establishment on the north backslope of Davis Drive, east of Dufferin Street (May 5, 2012)**

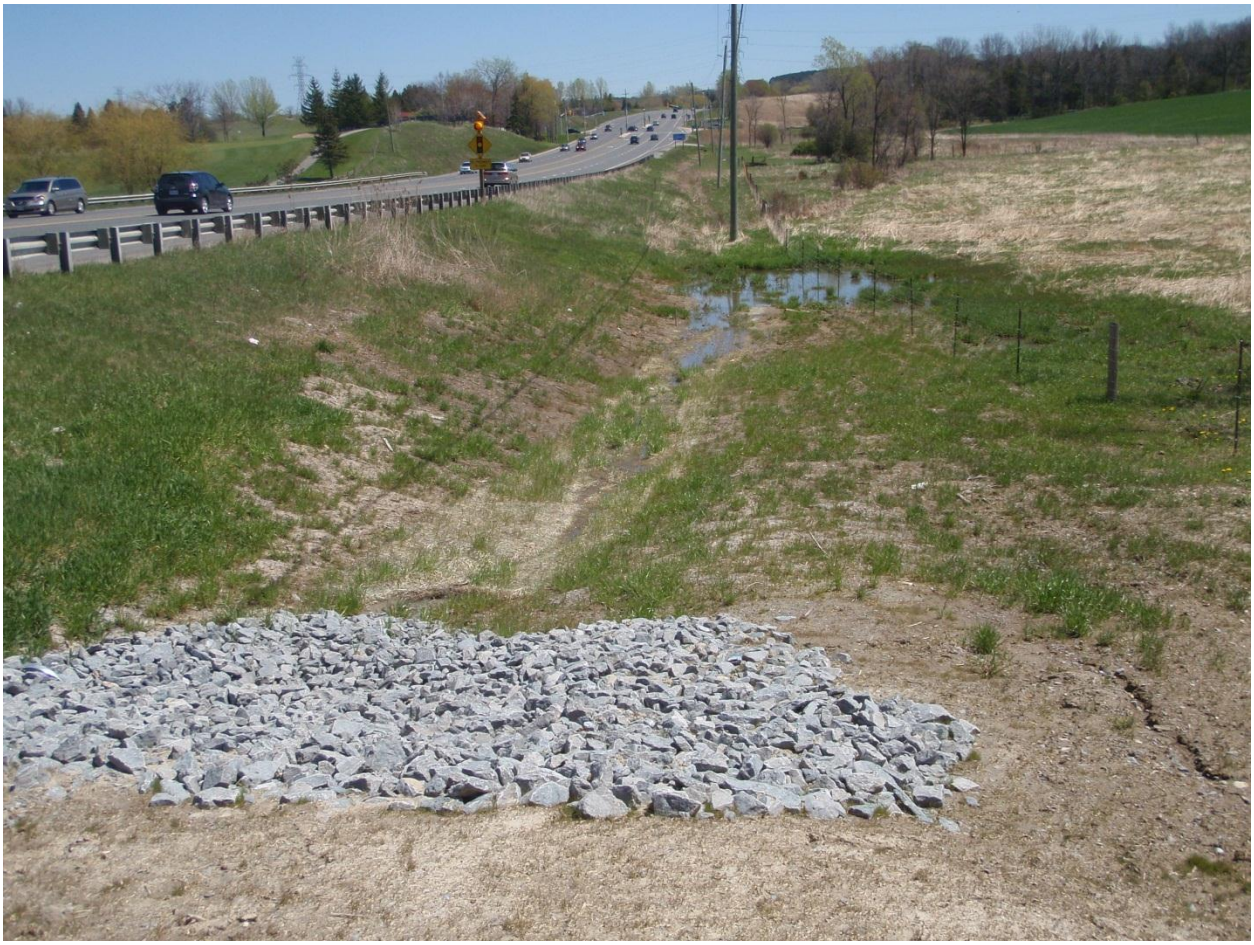

Photo 14 Poor vegetation establishment near WC6 directly west of Jane Street (May 5, 2012)

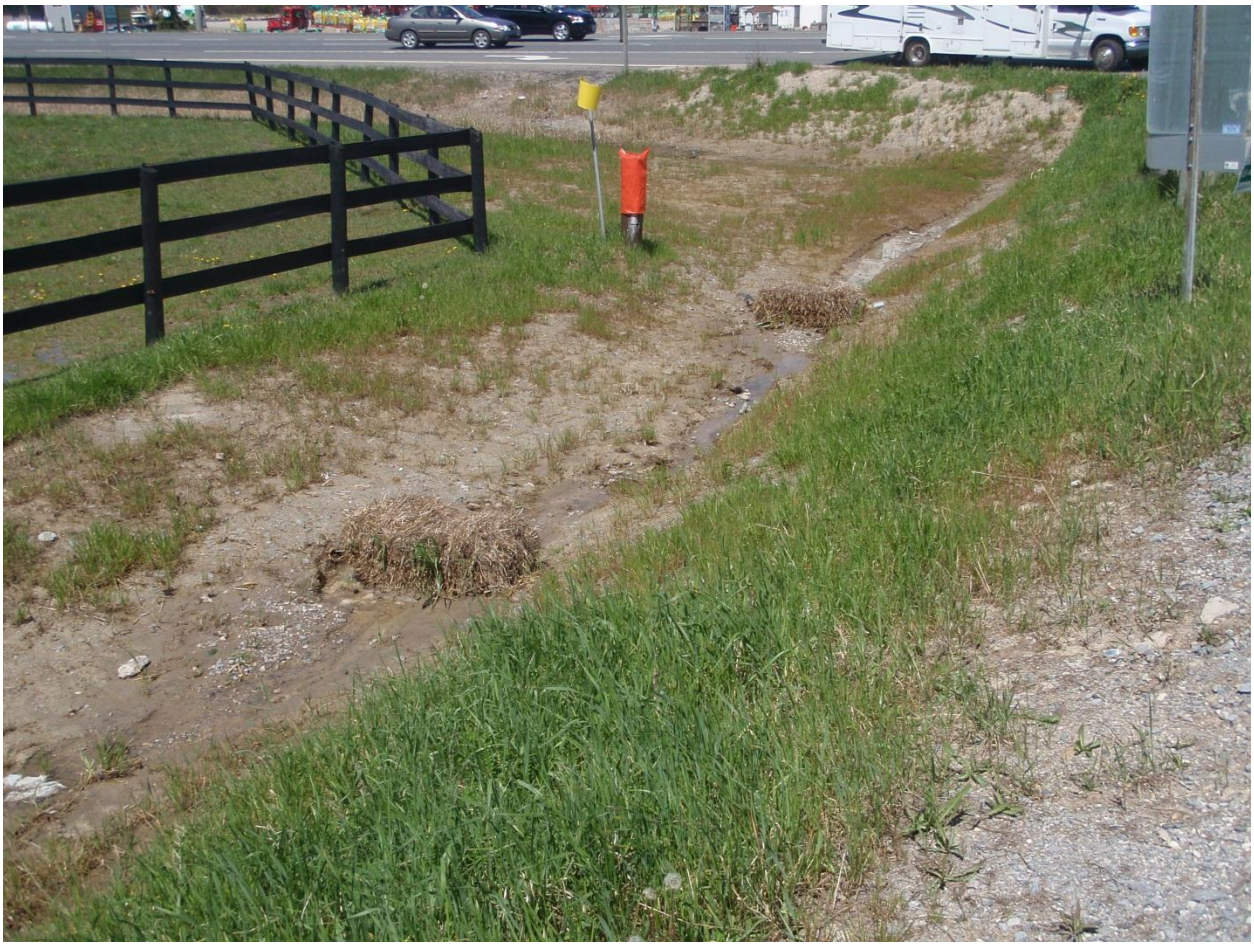

Photo 15 **Erosion and sediment deposits southwest corner of the Jane Street and Davis Drive intersection (May 5, 2012)**

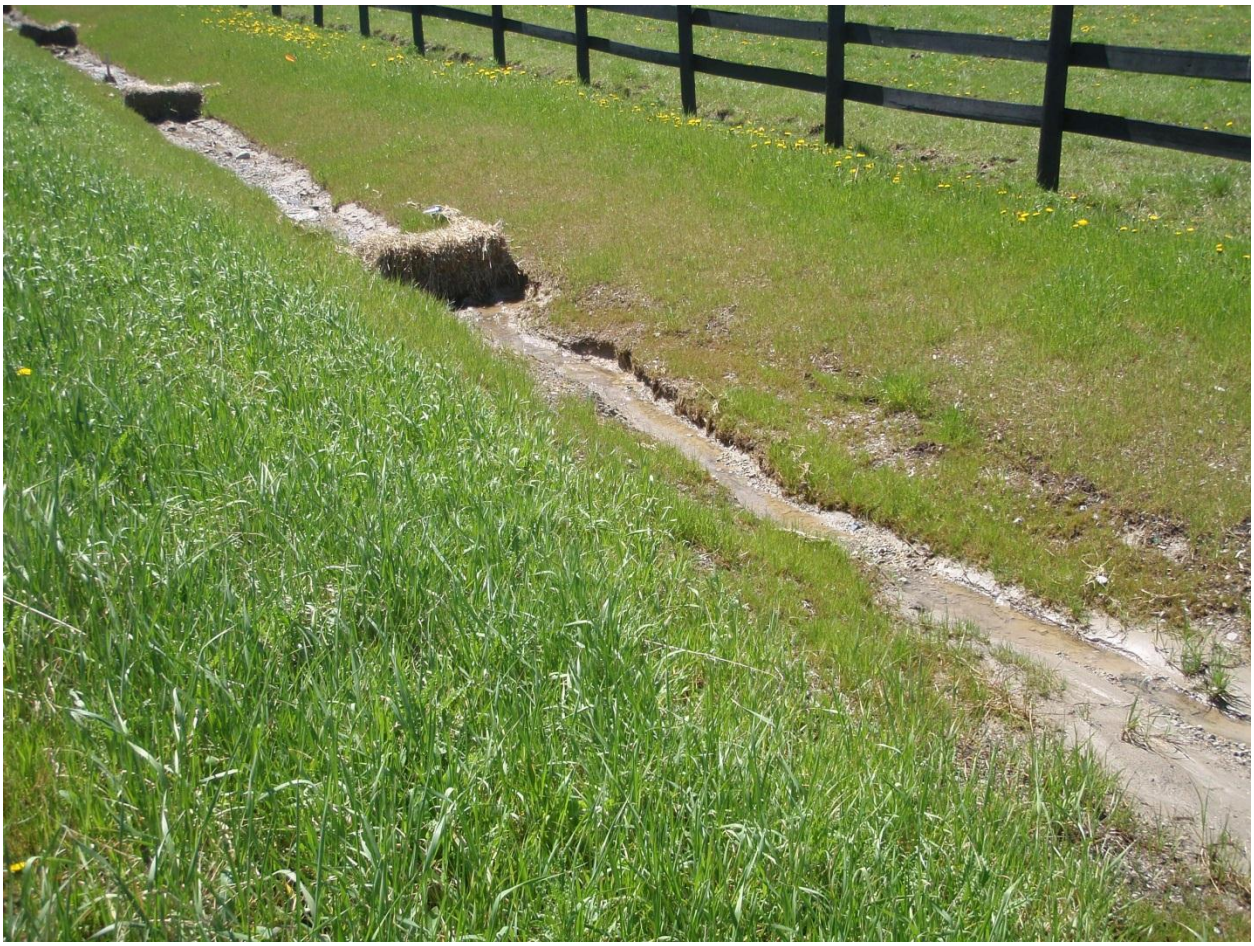

Photo 16 **Erosion and sediment deposits southeast corner of the Jane Street and Davis Drive intersection (May 5, 2012)**

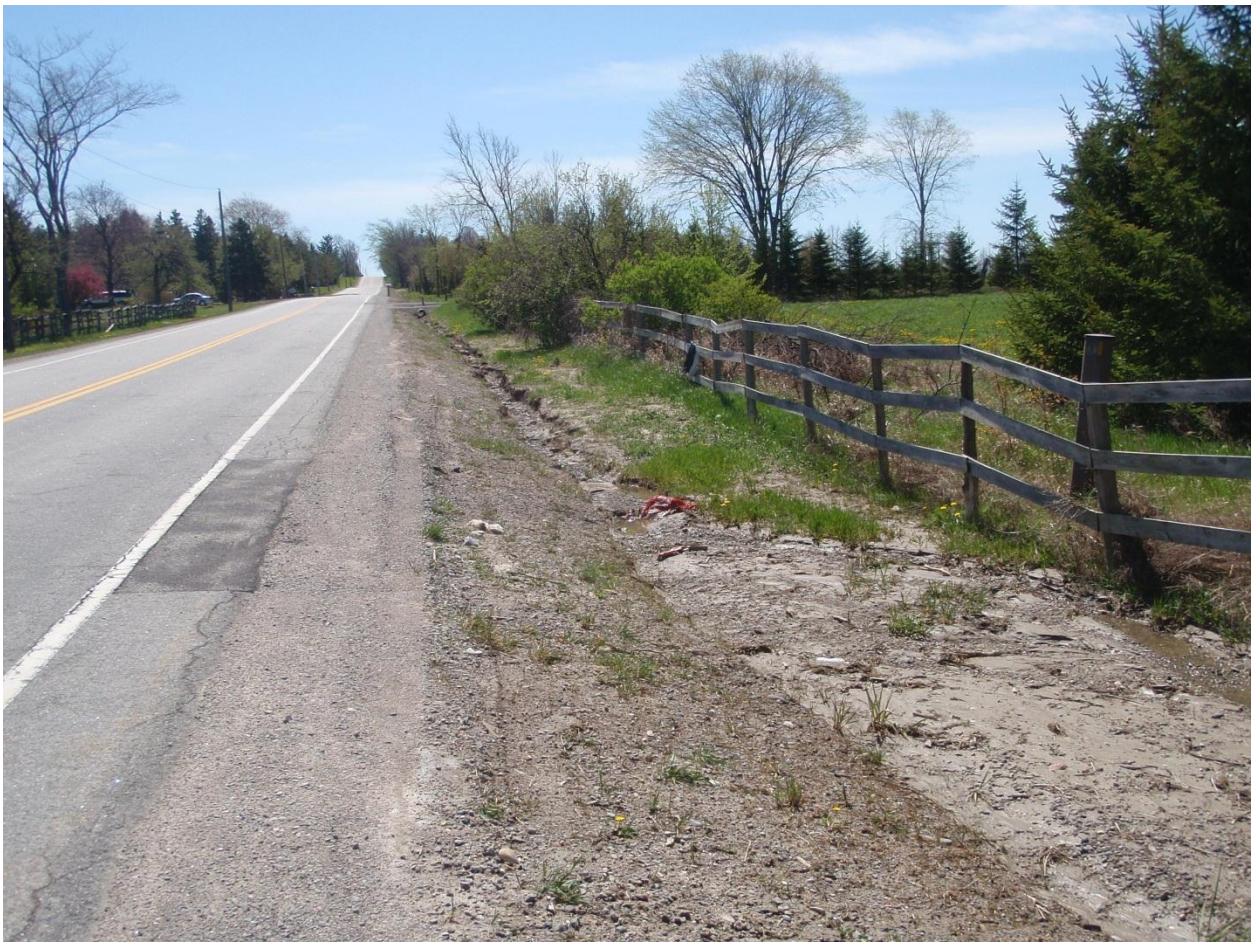

Photo 17 Erosion and sediment deposits east side of Jane Street (May 5, 2012)

APPENDIX C

Resident Comments

Table C-1 Summary of Resident Comments and Resolutions

Comment Number	Date	Resident Comment	Resolution	Status	State
1	24-Mar-11	Got construction notice letter. Why not going up 8th Conc. and avoid Pottageville?	Enbridge Representative explained enviro-socio-econ assessment and the Board process.	Complete.	Closed
2	6-Apr-11	a) Blind spot when coming out of driveway. b) Flag lady was verbally abusive. c) Appears to be cutting into her bank. She would like it restored when work moves on.	a) The Contractor placed convex mirror across from her driveway. b) Written warning was issued by the Contractor. c) Impact is in ROW. The Contractor to ensure that bank will be put back to original condition.	a) Complete. b) Complete. c) Complete.	Closed
3	9-Apr-11	Concerns about well and basement.	Enbridge Representative engaged Stantec to investigate. No damage to basement. Stantec assessment of well inconclusive. Out of court settlement reached.	Complete.	Closed
4	15-Apr-11	The Contractor is pleasant with lots of trucks, but traffic control is good. Concerned about dust from road blowing onto property.	Enbridge Representative told resident that we have a sweeper that will clean the road.	Complete.	Closed
5	17-Apr-11	Former Councilor requested natural gas service to home.	Enbridge Sales Representative responded to inquiry.	Complete.	Closed
6	18-Apr-11	Vacuum truck has been parked and idling for about an hour next to property. Concerned about noise, emissions and wasted fuel.	Enbridge Representative requested driver to shut off or relocate vehicle. Driver shut down.	Complete.	Closed
7	22-Apr-11	Councilor called with questions about pipeline stress.	Enbridge Representative responded to questions.	Complete.	Closed

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Comment Number	Date	Resident Comment	Resolution	Status	State
8	22-Apr-11	a) Does not feel that snow fence around excavation at edge of road is adequate, b) Concerned that flaggers are leaving empty water bottles behind, c) Vacuum trucks are noisy, d) Vac hole / excavation too close too deep (8') and too close to road.	a) Snow fence meets requirements, however the Contractor has installed additional quick fence. b) Flaggers say ditches are full of trash - bottles not associated with the Contractor. Topic raised at next tailgate meeting that laborers will clean ditches where they have been working. c) Enbridge Representative apologized for noise but explained not much can be done except avoidance. d) The Contractor reports road not at risk and not 8' deep.	a) Complete. b) Complete. c) Addressed. d) Addressed.	Closed
9	25-Apr-11	Inquired about getting a gas hook-up to their house.	Enbridge Sales Representative to return call.	Complete.	Closed
10	27-Apr-11	Inquired about getting a gas hook-up to their house.	Enbridge Sales Representative to return call.	Complete.	Closed
11	7-May-11	Resident says that they did not know anything about the work being done on Jane Street, and it is affecting business.	Enbridge Representative provided a copy of the Enbridge claims form.	Complete.	closed
12	9-May-11	Would like the pipe etc. moved from in front of his business.	Enbridge Representative spoke to Contractor about materials will be removed by end of day (May 9, 2011).	Complete.	Closed
13	11-May-11	Inquired about getting a gas hook-up to their house.	Enbridge Sales Representative to return call.	Complete.	Closed
14	11-May-11	Inquired about getting a gas hook-up to the Kettleby School.	Enbridge Sales Representative to return call.	Complete.	Closed

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Comment Number	Date	Resident Comment	Resolution	Status	State
15	13-May-11	Concerned about the potential impact to resident's well.	Enbridge Representative returned and indicated Stantec to collect samples and install a potable water supply. Stantec assessment inconclusive. Out of court settlement reached.	Not complete, resident still on potable water. Unable to get well drilled in 2011. Well work pending for 2012.	Open
16	19-May-11	Inquiring about which side of the road the pipeline is going to be on near home.	Enbridge Representative stated that the pipeline is going on the other side of the road from the property.	Complete.	Closed
17	19-May-11	A resident requested the MSDS for Bentonite.	The Contractor provided the MSDS to the resident.	Complete.	Closed
18	20-May-11	Inquired about a puddle beside house since pipeline was installed. Landowner drains sump into the ditch and it runs away but since the pipe went in it just sits there.	Stantec went to the address and found a bit of gravel left over from a drill pad. He removed the gravel from the ditch and restored the water flow.	Complete	Closed
19	1-Jun-11	Concerned about the letter the Contractor dropped off regarding the changes to the turning lanes on Davis Drive. Requested to be contacted and explain what is happening.	The Contractor called the resident and explained the traffic control plan.	Complete	Closed
20	1-Jun-11	Someone came by a month ago about doing well monitoring on his well. They have not heard anything back.	Enbridge Representative called and left a message letting them know that the well monitoring would be on-going until after construction was completed (in about 4 weeks). Also stated that once construction had been completed, final samples would be taken and it would take about a month for the final results to come back.	Complete	Closed
21	8-Jun-11	Would like the restoration completed in front of house.	The Contractor completed the restoration.	Complete	Closed
22	8-Jun-11	Inquired about getting a gas hook-up to their house.	Enbridge Sales Representative to return call.	Complete	Closed

Table C-1 Summary of Resident Comments and Resolutions

Comment Number	Date	Resident Comment	Resolution	Status	State
23	10-Jun-11	There is watering coming out beside the casing of the resident's well.	Stantec investigated. Appears well casing was not well sealed and drilling mud is rising up along the casing. Well water unaffected. Out of court settlement reached.	Complete	Closed
24	5-Jul-11	York Region received a concern regarding the restoration of the ditch in front of resident's property.	Enbridge Representative spoke to resident and agreed to monitor the situation and see what happens with the drainage after a heavy rain. No further concerns.	Complete	Closed
25	8-Jul-11	Resident wrote a letter to Enbridge regarding concerns with a HDD release which occurred on property on Friday, July 8, 2011.	Enbridge Representative responded to questions.	Complete	Closed
26	8-Jul-11	Resident concerned with tree on property which hangs over mailbox. Wanted to ensure it was not going to be disturbed.	Contractor committed to protect the tree. Construction completed without damage to tree.	Complete	Closed
27	15-Jul-11	Concern raised about potential construction related impact on well.	Site meeting arranged; observations and samples taken. Results inconclusive. All agreed to monitor the situation. If no improvement, remedial action will be planned.	As of May 2012 results remain inconclusive. Work has begun to identify possible remediation.	Open
28	15-Jul-11	The resident called to say Bell line is broken.	Contractor has not had any activity at this location within the past few weeks. Bell was aware of the issue and repair crews were dispatched.	Complete	Closed
29	18-Jul-11	Resident complained about the dust on the road.	Contractor committed to keep the road watered down to control the dust.	Complete	Closed
30	25-Jul-11	Inquired about how crews were going to be in front of horse paddock.	Enbridge Representative stated that Contractor would be finished by Wednesday, July 27, 2011 except for final restorations.	Complete	Closed
31	25-Jul-11	Wanted to know what Enbridge could do about the noise from the drill and reclaimer.	Contractor installed plywood walls to deflect the noise up and outward. No further complaints received.	Complete	Closed

Table C-1 Summary of Resident Comments and Resolutions

Comment Number	Date	Resident Comment	Resolution	Status	State
32	26-Jul-11	Inquired about update on well monitoring. Well is 240' deep (cased) and Stantec performed water quality tests months ago. This well will be added to the ongoing well monitoring program.	Stantec will follow up with resident at a later date once construction in the area is complete. Well monitoring program has since been completed.	Complete	Closed
33	4-Aug-11	Resident complained that the Contractor was working on their property.	Contractor staked-out the property so that issue does not happen again. No further complaints received.	Complete	Closed
34	9-Aug-11	Contractor needs to install a swale in the ditch. Resident also seeking compensation for damage/removal of (unmaintained) fence.	Contractor does not agree that they impacted the fence. Contractor delivered a load of crushed limestone as compensation.	Complete	Closed
35	10-Aug-11	Canada Post will not deliver mail due to how the Contractor reinstalled mailbox. Also had some concerns regarding trees and clean up indicated that resident is a renter and not the owner of the property.	Contractor completed work at that location and was no longer an issue.	Complete	Closed
36	16-Aug-11	Resident is having issues with grass that is not germinating and the weeds that are growing on their front lawn. This resident would also like to know the results of the well monitoring.	Several attempts were made to seed the lawn and it was eventually sodded.	Complete	Closed
37	18-2011	Resident phoned complaining about the excessive dust on Dufferin Street.	Enbridge requested Contractor to water Dufferin Street and keep the dust to a minimum.	Complete	Closed
38	18-Aug-11	Resident has concerns about traffic control, non-local, pot holes, dust, damage to his fence and trees. Wants compensation for the four hours of work lost due to the Bell line being down.	Enbridge called and left a message that was not returned.	Complete	Closed
39	13-Sep-11	Resident would like their property restored, the ditch is too steep and they do not have grass yet.	Pre-construction photos show the restoration was to original condition. No additional restoration required.	Complete	Closed

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Comment Number	Date	Resident Comment	Resolution	Status	State
40	21-Sep-11	Resident stated that they just got a water sample back from York Region and it shows coliform levels at around 25. Claims these are the highest they have been in 13 years.	Stantec investigated and found an issue with the aboveground seal on the well (not related to pipeline construction). Enbridge paid to have well repaired.	Complete	Closed
41	22-Sep-11	Resident stated they have been experiencing well water issues since the beginning of September, 2011. Claimed they had to change his filters very frequently in the past few weeks.	Stantec assessed the well and agreed there could have been a temporary disturbance. They also noted pre-existing issues with the well. Enbridge paid for the repairs to the well.	Complete	Closed
42	26-Sep-11	Resident wanted to know when the west side of her property would be restored to pre-construction appearance.	Property was restored that week.	Complete	Closed
43	28-Sep-11	Resident wanted front lawn repaired, fence put back up and the ditch repaired where it has washed out	Contractor completed the requested repairs.	Complete	Closed
44	4-Oct-11	Resident called regarding the restoration of the property. Stated satisfaction with the left side of the driveway; however, wants to know what is going on with the right side.	Enbridge Representative stated that a valve would be installed on the right side of his driveway and then it will be reinstated. The resident has not called back in since the valve and associated reinstatement was completed.	Complete	Closed
45	31-Oct-11	Complaint about about the noise coming from the construction of the pipeline.	Enbridge Representative stated explained that it's the drying the pipeline and the noise is coming from the air beiing passing through and it should be finished drying by Wednesday or Thursday of that week.	Complete	Closed
46	4-Apr-12	Emailed alleging fence had been damaged by flooding associated with pipeline construction last fall.	Stantec investigated and determined there was no other evidence of flooding and that the fence damage is localized at a spot containing car debris (broken glass, mirror, reflector, etc.) suggesting a car accident damaged the fence.	Despite the evidence, resident insists flooding damaged the fence	Open

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Comment Number	Date	Resident Comment	Resolution	Status	State
47	30-Apr-12	Appears to be subsidence over pipeline necessitating re-grading and lawn restoration.	Enbridge Representative returned call and explained that additional restoration was planned once the ground conditions were dry. Her issue would be logged and addressed before June.	Logged	Open