

February 24, 2017

BY RESS & Courier

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

Dear Ms. Walli:

**Re: Union Gas Limited (“Union”)
Brantford-Kirkwall Project
Board File # EB-2013-0074**

Pursuant to Condition 1.6 and 3.3 of the Board’s Conditions of Approval for the above-noted project, please find attached a post financial construction report and final monitoring report.

Sincerely,

[original signed by]

Shelley Bechard
Administrative Analyst, Regulatory Projects
:sb
Encl.

cc: Zora Crnojacki
Nancy Marconi
Regulatory Library

POST CONSTRUCTION FINANCIAL REPORT

2015 DAWN PARKWAY EXPANSION

BRANTFORD-KIRK WALL PIPELINE PROJECT

In compliance with the Ontario Energy Board Order EB-2013-0074 and condition 1.5, the following is a report on the capital pipeline cost for the 2015 Dawn Parkway Expansion Brantford-Kirkwall Pipeline Project.

The Project actual cost was \$6,929,018 or 7% higher than estimated cost filed with the Board. The following explains any significant variances.

Description	Filed Cost EB-2013-0074	Actual Cost	Variance	Variance
	\$	\$	\$	%
Pipeline and Equipment				
13,900 m of NPS 48	\$10,880,000	\$9,867,833	-\$1,012,167	-9% ⁽¹⁾
small bore pipe, valves, fittings, misc.	\$2,254,000	\$2,214,419	-\$39,581	-2% ⁽²⁾
Total Pipeline and Equipment	\$13,134,000	\$12,082,252	-\$1,051,748	-8%
Construction and Labour				
Lay 13,900 m of NPS 48 Steel Pipe	\$57,338,000	\$79,217,123	\$21,879,123	38% ⁽³⁾
Easement, Lands, Damages	\$8,701,000	\$10,824,370	\$2,123,370	24% ⁽⁴⁾
Total Pipeline, Equipment, Construction and Labour	\$66,039,000	\$90,041,493	\$24,002,493	36%
Contingencies	\$15,168,000	\$0	\$15,168,000	-100% ⁽⁵⁾
Interest During Construction	\$1,715,000	\$861,273	-\$853,727	-50% ⁽⁶⁾
Total Estimated Pipeline Capital Cost	\$96,056,000	\$102,985,018	\$6,929,018	7%

(1) and (2) Actual cost for Material and Equipment for the Project were lower than original estimates which were based upon historical average unit cost. Steel costs were lower at the time of purchase than when estimates were completed.

(3) Actual cost for Prime Contractor was significantly higher than the original estimate. At the time of submission to the OEB evidence the Project had not completed its competitive bidding exercise to reflect current market contractor cost. It was found during the competitive bidding process that the pipeline contractor market cost had increased more than expected.

(4) Actual cost for easements was higher than the original estimate which was based upon historical land values from similar projects.

(5) Contingencies were estimated as required for unforeseen expenditures and allocated throughout the project and applied to the increase in contractor and land cost.

(6) Interest During Construction was significantly lower than estimated as the cost to borrow was lower than estimated (interest rates were lower) and actual expenditures were realized later than the cash flow used in the estimate.

DAWN-PARKWAY FACILITIES EXPANSION

BRANTFORD TO KIRKWALL PIPELINE PROJECT

FINAL MONITORING REPORT

Prepared by: Union Gas Limited
Environmental Planning
February 2017

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1.0 INTRODUCTION

This Final Monitoring Report is provided in compliance with the Ontario Energy Board (“Board”) Order EB-2013-0074 granting Union Gas Limited (“Union”) “Leave to Construct” the Brantford to Kirkwall pipeline. The pipeline consists of approximately 13.9 km of NPS (Nominal Pipe Size) 48 inch (1219 mm Outside Diameter) natural gas pipeline originating at Unions’ existing Brantford Take-Off located on Lot 7, Concession XIII, Township of North Dumfries in the Region of Waterloo and concluding at Union’s existing Kirkwall Valve Site on Lot 25, Concession XII, Geographic Township of Beverly in the City of Hamilton. A map of the pipeline route is included in Appendix A.

The requirements for and details of this report are outlined in specific conditions issued by the Board in its Order dated January 30, 2014 and as listed below. Accordingly, the purpose of this Final Monitoring Report is to fulfill these conditions. The complete Conditions of Approval can be found in Appendix B. The Conditions of Approval addressed in this report are as follows:

1 General Requirements

- 1.1 Union Gas Limited (“Union”) shall construct the facilities and restore the land in accordance with its application and the evidence filed in EB-2013-0074 except as modified by this Order and these Conditions of Approval.
- 1.4 Union shall implement all the recommendations of the Environmental Report filed in the pre-filed evidence, and all the recommendations and directives identified by the Ontario Pipeline Coordinating Committee (“OPCC”) review.
- 1.5 Union shall advise the Board’s designated representative of any proposed material change in construction or restoration procedures and, except in an emergency, Union shall not make such change without prior approval of the Board or its designated

representative. In the event of an emergency, the Board shall be informed immediately after the fact.

2 Project and Communication Requirements

- 2.4 Union shall furnish the Board's designated representative with all reasonable assistance for ascertaining whether the work is being or has been performed in accordance with the Board's Order.

3 Monitoring and Reporting Requirements

- 3.1 Both during and after construction, Union 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. Union shall attach a log of all complaints that have been received to the interim and final monitoring reports. The log shall record the times of all complaints received, the substance of each complaint, the actions taken in response, and the reasons underlying such actions.
- 3.3 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.

4 Other Approvals

- 4.1 Union shall obtain all other approvals, permits, licences, and certificates required to construct, operate and maintain the proposed project, shall provide a list thereof to the Board, and shall provide copies of all such written approvals, permits, licences, and certificates upon the Board's request.

2.0 BACKGROUND

Union was granted approval to construct the Brantford to Kirkwall Pipeline Project on January 30, 2014. Construction was initiated on July 6, 2015 with the pipeline placed into service on November 24, 2015. Cleanup along the pipeline corridor was completed for 2015 on December 8th.

Construction progressed in an easterly direction from Kirkwall Road with topsoil stripping and grading, and in a westerly direction from Valens Road with the installation of wildlife exclusion fencing, topsoil stripping, grading, and the construction of a temporary access road. Construction then generally progressed in an easterly direction from Cheese Factory Road with topsoil stripping, grading, trenching, stringing of new pipeline, welding, joint coating, lowering-in, tie-ins, backfilling, and cleanup. Installation of temporary accesses across watercourses and drilling and blasting of bedrock also occurred as required, with the majority of bedrock works necessary from Cooper Road easterly to Valens Road. All work occurred outside of the African Lion Safari until September 21, 2015 when it was closed for the season and access was granted.

Union returned to the right-of-way in spring 2016 to complete the following activities: repair any subsidence on the right-of-way, ensure there is adequate stability and re-vegetation at all watercourse crossings, tree/shrub replacement, perform a general overview of the right-of-way and complete any additional cleanup as required. Final cleanup along the pipeline corridor was completed on June 25, 2016.

3.0 POTENTIAL IMPACTS AND MITIGATION

3.1 Condition 1.1

“Union Gas Limited (“Union”) shall construct the facilities and restore the land in accordance with its application and the evidence filed in EB-2013-0074 except as modified by this Order and these Conditions of Approval.”

Union has complied with all conditions imposed by the Board during construction of the pipeline. Union has also restored the land according to the evidence in support of its application and in accordance with all mitigation measures recommended in the Environmental Report (ER) filed by Union Gas.

3.2 Condition 1.4

“Union shall implement all the recommendations of the Environmental Report filed in the pre-filed evidence, and all the recommendations and directives identified by the Ontario Pipeline Coordinating Committee (“OPCC”) review.”

Union has implemented all recommendations and mitigation measures outlined in the ER along with all directives identified by the OPCC.

3.3 Condition 1.5

“Union shall advise the Board’s designated representative of any proposed material change in construction or restoration procedures and, except in an emergency, Union shall not make such change without prior approval of the Board or its designated representative. In the event of an emergency, the Board shall be informed immediately after the fact.”

There were no changes to construction during this project.

3.4 Condition 2.4

“Union shall furnish the Board’s designated representative with all reasonable assistance for ascertaining whether the work is being or has been performed in accordance with the Board’s Order.”

This final monitoring report confirms that the work has been performed according to the Board’s Order.

3.5 Condition 3.1

“Both during and after construction, Union 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. Union shall attach a log of all complaints that have been received to the interim and final monitoring reports. The log shall record the times of all complaints received, the substance of each complaint, the actions taken in response, and the reasons underlying such actions.”

3.5.1 Report Circulation

Four (4) copies of this final monitoring report are provided to the Board.

3.5.2 Landowner Concerns

Union’s Complaint Tracking System (Table 1), which identifies the current status of landowner complaints received as a result of pipeline construction, was in effect. A complaint is identified as a concern raised by a landowner that has not been resolved to the landowner’s satisfaction within three (3) working days. All complaints received by Union have been resolved.

During construction, a number of concerns other than those listed in Table 1 were raised to Union and their Contractor. These issues were minor in nature and were dealt with by Union and the Contractor in an expeditious manner.

Union will continue to monitor the state of the land and environment and will address any additional landowner concerns if they should arise.

3.6 Condition 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.”

The entire pipeline route was walked on May 10, 2016 to check for any soil subsidence, stability and re-vegetation at watercourses, and to generally identify areas requiring additional restorative efforts. Any areas with soil subsidence were repaired and other restorative efforts were completed in spring/summer 2016 to the satisfaction of the Landowner. An additional site visit was completed on October 14, 2016 to determine if the stability and vegetative growth at watercourses was sufficient enough to remove sediment and erosion controls (i.e. silt fencing). All watercourses had sufficient stability and vegetative growth.

No deficiencies in compliance with any Conditions of Approval were identified.

3.6.1 Monitoring Programs

The previously filed Interim Monitoring Report provides a description of the successfully completed monitoring programs (soil testing, water well monitoring, watercourse monitoring, species at risk surveys, tree removal, tree replacement program, archaeological monitoring, and blasting). Updates to watercourse monitoring and the tree replacement program are provided below.

3.6.1.1 Watercourse Monitoring

Post-construction watercourse monitoring for bank stability and re-vegetation was completed on May 10, 2016 and October 14, 2016. All watercourses have been restored to pre-construction conditions or better and the banks have been successfully stabilized and re-vegetated.

3.6.1.2 Tree Replacement Program

The Tree Replacement Program was implemented in spring 2016 as a reforestation initiative to replant twice the area of trees cleared from woodlots prior to construction. The majority of the replanting was completed in April and May 2016, with the remaining plantings to be completed in spring 2017. All of the trees were replanted by the Grand River Conservation Authority on properties along the pipeline route.

3.7 Condition 4.1

Union shall obtain all other approvals, permits, licences, and certificates required to construct, operate and maintain the proposed project, shall provide a list thereof to the Board, and shall provide copies of all such written approvals, permits, licences, and certificates upon the Board's request.

Union Gas obtained the following environmental permits for construction:

Grand River Conservation Authority

- Watercourse Crossings – Development, Interference With Wetlands and Alterations to Shorelines and Watercourses Permit

Ministry of Tourism, Culture and Sport

- Archaeology clearance – Archaeological Reports reviewed and accepted into the Ontario Public Register of Archaeological Reports

Ministry of the Environment and Climate Change (MOECC)

- Permit to Take Water, Permit No. 6067-9VEHUN (Surface and Ground Water)
- Permit to Take Water, Permit No. 8118-9YXQKZ (Hydrostatic Test)

4.0 SUMMARY

This Final Monitoring Report has been prepared as per the conditions in the Board Order EB-2013-0074. This report provides an outline of Unions' compliance with the commitments of its witnesses, the measures implemented during construction to minimize disturbance to the environment, and a description of Union's monitoring programs.

Union successfully constructed the facilities and restored the land in accordance with its application and the evidence filed in EB-2013-0074. All of the mitigation measures and monitoring programs were implemented successfully which effectively eliminated any long term impacts to the environment.

Table 1

Summary of Landowner Complaints

**Table 1 – Summary of Landowner Complaints
Brantford to Kirkwall Pipeline Project**

Date	Complaint Number	Complaint	Resolution	Status
11/07/2015	BK001	Tap water is brown in color. Signs of silt.	Potable water supplied immediately. New water well drilled.	Resolved
14/07/2015	BK002	Electric fencing prior to construction damaged.	Landowner compensated and will install own fencing upon completion of final clean-up.	Resolved
27/07/2015	BK003	Small blue spruce tree left off easement. Landowner did not want.	Tree removed.	Resolved
30/07/2015	BK004	Amount of rock cut from side of hill.	Lands returned to preconstruction condition.	Resolved
31/07/2015	BK005	Flooding of pasture field due to compromised silt bags.	Water pumping redirected.	Resolved
01/08/2015	BK006	Dozer was parked too close to horse trail crossing easement.	Dozer was relocated.	Resolved
05/08/2015	BK007	Alarm wire running through easement to chicken barn was cut during excavation.	Alarm wire was repaired immediately. Then replaced during clean-up.	Resolved
11/08/2015	BK008	Temporary access to mobile park.	Re-graded and placed asphalt.	Resolved
12/08/2015	BK009	Complained of dust.	Water trucks dispatched immediately. Calcium chloride used on roadway.	Resolved
12/08/2015	BK010	Landowner requested hay mowing and as a result 3 fence posts were damaged.	Seven fence posts were replaced.	Resolved
17/08/2015	BK011	No access to move bales of hay to barn on lands north of easement.	Flagman assisted the moving bales of hay	Resolved
24/08/2015	BK012	Need to continuously prime water pump.	Immediately supplied potable water. New well drilled.	Resolved
15/09/2015	BK013	Wet area near shed located on Temporary Land Use.	Pumping of water ceased.	Resolved

Date	Complaint Number	Complaint	Resolution	Status
07/10/2015	BK014	Stones on field.	Stones re-picked several times. Stones will be picked again in year 2 of final clean-up.	Resolved
15/10/2015	BK015	Placement of excess stones.	Stones were placed as per the direction of the landowner.	Resolved
03/11/2015	BK016	Ponding has occurred at creek crossing.	Culvert lowered.	Resolved
17/11/2015	BK017	Filters seem to require replacement earlier than normal.	Compensated for filter replacement.	Resolved

Table 2

Potential Impacts and Mitigation Measures

Table 2 – Potential Impacts and Mitigation Measures

Activity	Effects	Mitigation Measures
a) Pre-pipeline Construction	<ul style="list-style-type: none"> Pipeline construction may be disruptive to landowners and farming operations 	<ul style="list-style-type: none"> Prior to pipeline construction, the Lands Relations Agent and Construction Superintendent met with all directly affected landowners to discuss construction and identify any concerns (i.e. tiles) that may need to be addressed.
b) Surveying	<ul style="list-style-type: none"> Surveying may be disruptive to the landowners Crop and woodlot damage 	<ul style="list-style-type: none"> Landowners and tenants were notified of intent to enter their property All crop and woodlot damages were settled with landowners or tenants as required
c) Access Roads	<ul style="list-style-type: none"> Vehicular traffic may cause soil rutting, compaction or mixing 	<ul style="list-style-type: none"> Permits from the local Conservation Authority were obtained and the conditions were followed prior to construction of access roads across watercourses Culverts were utilized in the construction of access roads to ensure existing drainage patterns were maintained Sediment fencing, erosion control matting, and vegetative covers (i.e. grasses) were used alongside watercourses to minimize run-off and erosion. Geotextile fabric was used for new temporary access roads to provide additional stability, minimize compaction, and minimize topsoil mixing with granular material.
d) Clearing	<ul style="list-style-type: none"> The removal of trees 	<ul style="list-style-type: none"> Landowners were eligible for the Union Gas Tree Replacement Program Tree cut from woodlots were replaced at a 2:1 per area basis The harvesting of trees was minimized as much as practical All tree clearing was done outside the migratory bird nesting season (April 1 – August 31)
e) Grading	<ul style="list-style-type: none"> Grading may be necessary for the 	<ul style="list-style-type: none"> Broken tiles were repaired as per Specification CS-18-13 and Drawings NO.

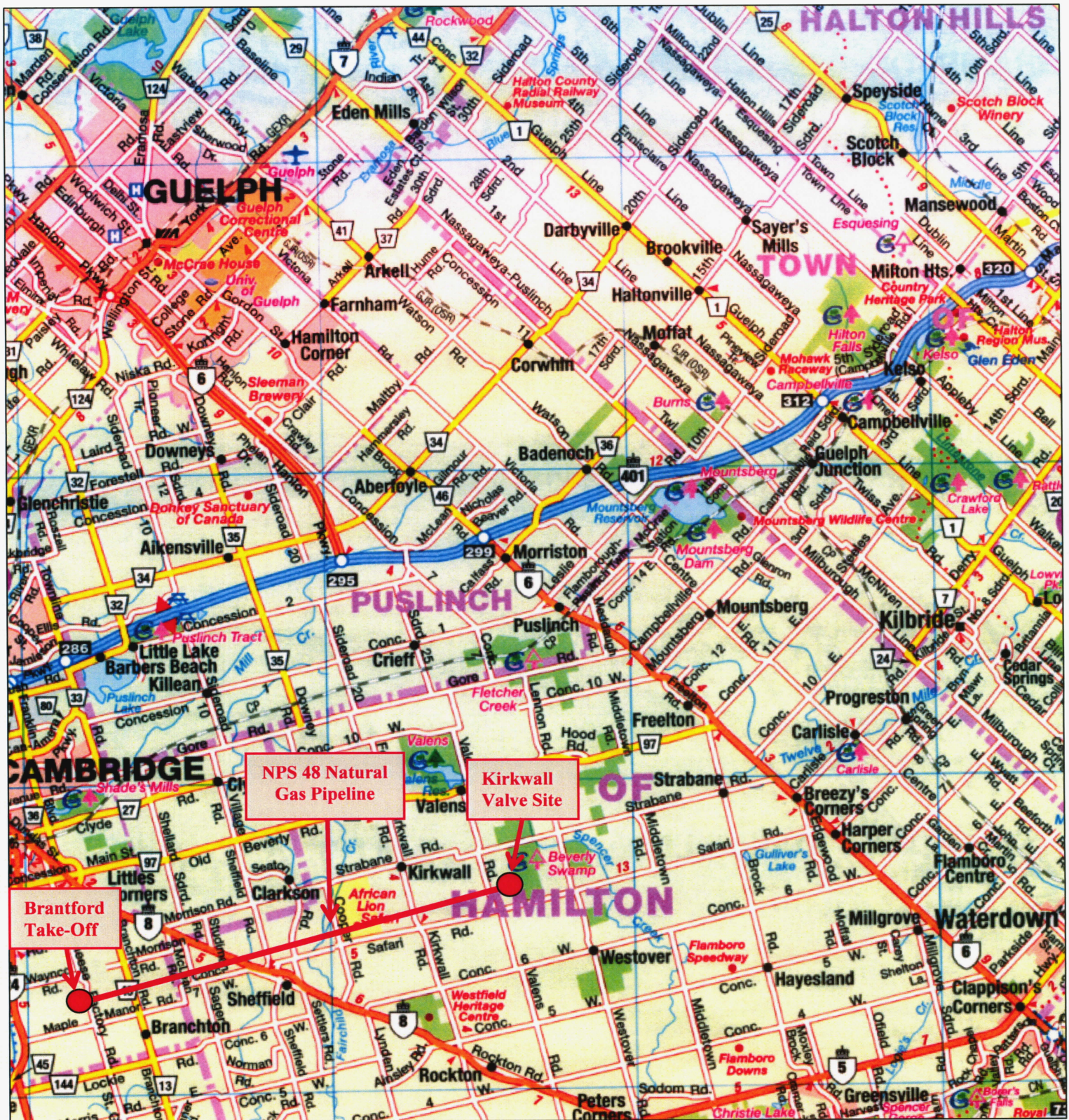
Activity	Effects	Mitigation Measures
	<p>construction of access roads or work areas. On agricultural lands, grading has the potential to impact soil productivity by disrupting tile drains and causing soil mixing, rutting and compaction, particularly during wet soil conditions.</p>	<p>PL-18-13-01 and PL-18-13-02.</p> <ul style="list-style-type: none"> Grading was not conducted on wet soils Topsoil was stripped and stockpiled on the edge of the easement on the spoil side of the trench and in some areas on the work side Topsoil stripping was conducted as per Specifications CS-04-13 and CS-05-13 Topsoil stripping was monitored to ensure there was adequate separation of topsoil and subsoil All construction protocols for Soybean Cyst Nematodes were in place and followed
f) Stringing	<ul style="list-style-type: none"> Stringing trucks may impact soil productivity due to soil compaction, rutting, and mixing 	<ul style="list-style-type: none"> Specification CS-11-13 was followed.
g) Trenching	<ul style="list-style-type: none"> Trenching may disrupt tile drains and cause soil mixing (topsoil and subsoil mixing), which may impact soil productivity 	<ul style="list-style-type: none"> Trenching followed Specification CS-06-13 Prior to trenching, topsoil was separated from subsoil as per Specifications CS-04-13 and CS-05-13
h) Backfilling	<ul style="list-style-type: none"> Improper backfilling may cause topsoil/subsoil mixing 	<ul style="list-style-type: none"> Specification CS-17-13 was followed.
i) Hydrostatic Testing	<ul style="list-style-type: none"> Discharge of hydrostatic test water may cause erosion at the point of discharge 	<ul style="list-style-type: none"> Measures were used (filtration tub) to prevent erosion at the point of discharge A permit was secured from the from the Ministry of Environment and Climate Change prior to hydrostatic testing and conditions were followed A monitoring program was undertaken to ensure that water quality had remained within acceptable parameters during testing

Activity	Effects	Mitigation Measures
j) Site Restoration	<ul style="list-style-type: none"> Improper site restoration may affect soil productivity 	<ul style="list-style-type: none"> Restoration followed Specification CS-19-13 Disturbed areas were restored by re-grading, followed by chisel ploughing and/or sub-soiling and disking Soil compaction was monitored by the Soils Inspector to determine if these methods were suitable The Lands Relations Agent has reviewed and discussed the site restoration measures with the landowner and tenant, so as to identify any concerns or suggestions with regards to these measures Upon completion, the Lands Relations Agent reviewed the area with the landowner and tenant to ensure restoration was completed to their satisfaction
k) Fuel Storage and Handling	<ul style="list-style-type: none"> Improper fuel storage and handling may cause spillage and possible contamination of soil 	<ul style="list-style-type: none"> Fuel was not stored near watercourses or wetlands (i.e. within 100 m) Fuel storage areas were clearly marked Spill clean-up material (i.e. absorbent pads) were stored on-site and available at all times
l) Liquid and Solid Waste	<ul style="list-style-type: none"> Liquid waste, solid waste, and lubricants must be properly handled, stored and disposed of to avoid potential contamination of the surrounding area 	<ul style="list-style-type: none"> Liquid and solid wastes were properly stored, handled, and disposed of at an approved location The area was cleared of all debris and litter during and after construction
m) Fencing	<ul style="list-style-type: none"> Fencing on properties along the pipeline route had to be removed to facilitate access for construction 	<ul style="list-style-type: none"> Fences were repaired to Specification CS-01-13

Appendix A

General Location Map

GENERAL LOCATION MAP BRANTFORD TO KIRKWALL NPS 48



Appendix B

Conditions of Approval

Appendix E

Union Gas Limited
Leave to Construct Application
EB-2013-0074
Brantford-Kirkwall/Parkway D Project
Conditions of Approval

1 General Requirements

- 1.1 Union Gas Limited ("Union") shall construct the facilities and restore the land in accordance with its application and the evidence filed in EB-2013-0074 except as modified by this Order and these Conditions of Approval.
- 1.2 Union shall not begin construction of the Brantford-Kirkwall pipeline before the National Energy Board approves the TransCanada King's North project. Union shall not begin construction of the Brantford-Kirkwall pipeline until it has received written confirmation from TransCanada that TransCanada is committed to proceeding with construction of the King's North project. Union shall file with the Board a copy of TransCanada's written confirmation within 10 days of its receipt by Union.
- 1.3 Unless otherwise ordered by the Board, authorization for Leave to Construct shall terminate December 31, 2016, unless construction has commenced prior to that date.
- 1.4 Union shall implement all the recommendations of the Environmental Report filed in the pre-filed evidence, and all the recommendations and directives identified by the Ontario Pipeline Coordinating Committee ("OPCC") review.
- 1.5 Union shall advise the Board's designated representative of any proposed material change in construction or restoration procedures and, except in an emergency, Union shall not make such change without prior approval of the

Board or its designated representative. In the event of an emergency, the Board shall be informed immediately after the fact.

- 1.6 Within 15 months of the final in-service date, Union shall file with the Board Secretary a Post Construction Financial Report. The Report shall indicate the actual capital costs of the project and an explanation for any significant variances from the estimates filed in this proceeding.

2 Project and Communications Requirements

- 2.1 The Board's designated representative for the purpose of these Conditions of Approval shall be the Manager, Natural Gas Applications.
- 2.2 Union shall designate a person as project engineer and shall provide the name of the individual to the Board's designated representative. The project engineer will be responsible for the fulfillment of the Conditions of Approval on the construction site. Union shall provide a copy of the Order and Conditions of Approval to the project engineer, within seven days of the Board's Order being issued.
- 2.3 Union shall give the Board's designated representative and the Chair of the OPCC ten days written notice in advance of the commencement of the construction.
- 2.4 Union shall furnish the Board's designated representative with all reasonable assistance for ascertaining whether the work is being or has been performed in accordance with the Board's Order.
- 2.5 Union shall file with the Board's designated representative notice of the date on which the installed pipelines were tested, within one month after the final test date.
- 2.6 Union shall furnish the Board's designated representative with five copies of written confirmation of the completion of construction. A copy of the confirmation shall be provided to the Chair of the OPCC.

3 Monitoring and Reporting Requirements

- 3.1 Both during and after construction, Union 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. Union shall attach a log of all complaints that have been received to the interim and final monitoring reports. The log shall record the times of all complaints received, the substance of each complaint, the actions taken in response, and the reasons underlying such actions.
- 3.2 The interim monitoring report shall confirm Union's adherence to Condition 1.1 and shall include a description of the impacts noted during construction and the actions taken or to be taken to prevent or mitigate the long-term effects of the impacts of construction. This report shall describe any outstanding concerns identified during construction.
- 3.3 The final monitoring report shall describe the condition of any rehabilitated land and the effectiveness of any mitigation measures undertaken. The results of the monitoring programs and analysis shall be included and recommendations made as appropriate. Any deficiency in compliance with any of the Conditions of Approval shall be explained.

4 Other Approvals

- 4.1 Union shall obtain all other approvals, permits, licences, and certificates required to construct, operate and maintain the proposed project, shall provide a list shall provide a list thereof to the Board, and shall provide copies of all such written approvals, permits, licences, and certificates upon the Board's request.

Appendix C

Photograph Inventory



A chisel plough is used to relieve subsoil compaction and then stones are picked manually and with skid steers. Once the subsoil is ready, the topsoil is spread across the right-of-way, as pictured.



Agricultural fields were restored to ensure a productive growing season in 2016.



Natural right-of-way areas were seeded with native seed mixes. An all-terrain vehicle is pictured working up the soil in preparation for seeding.



The natural right-of-way area seeded in the previous picture was successfully restored (picture taken October 2016).



All watercourses were monitored in spring 2016 to determine if there was adequate vegetative growth/stabilization on the banks. As vegetation had not fully established itself, all sediment and erosion controls were left in place.



All watercourses were monitored again in fall 2016. The same watercourse as pictured above had vegetation fully established on its banks and sediment and erosion controls could be removed.



Picture above is another example of a natural right-of-way area, taken in spring 2016 before seeding.



The same area as previously pictured was fully restored by fall 2016.



Wetland areas along the right-of-way were successfully restored and were full of water in spring 2016.



Native seedlings were planted in spring 2016 as part of the tree replacement program. These coniferous trees were planted on a landowner's property to increase the forested area.