

By RESS & Courier

March 30, 2015

Ms. Pascale Duguay,
Manager, Natural Gas Applications
Ontario Energy Board
Suite 2700, 2300 Yonge Street
Toronto, Ontario
M4P 1E4

Dear Ms. Duguay:

**Re: Union Gas Limited
Panhandle NPS 16 Replacement (Lakeshore) Project
Board File # EB-2013-0420**

Pursuant to Condition 3.1 and 3.2 of the Board's Conditions of Approval for the above-noted project, please find attached Union's Interim Monitoring Report. I confirm that four copies of this report shall follow by courier to your attention.

Sincerely,

[Original Signed By]

Shelley Bechard
Administrative Analyst, Regulatory Projects
Encl.

cc: Z. Crnojacki (Chair, OPCC)
Regulatory Library

PANHANDLE 2014 REPLACEMENT PROJECT INTERIM MONITORING REPORT

Prepared by: Union Gas Limited
Environmental Planning
March 2015

TABLE OF CONTENTS

Panhandle 2014 Replacement Project Interim Monitoring Report

	<u>Page No.</u>
1.0 Introduction	1
2.0 Background	3
3.0 Potential Impacts and Mitigation	3
3.1 Condition 1.1)	3
3.2 Condition 1.3)	4
3.3 Condition 1.4)	4
3.4 Condition 2.4)	5
3.5 Condition 3.1)	5
3.1.1 Report Circulation.....	5
3.1.2 Landowner Concerns.....	5
3.6 Condition 3.2)	6
3.2.1 Monitoring Programs.....	6
3.2.1.1 Archaeological Assessment	6
3.2.1.2 Watercourse Monitoring	6
3.2.1.3 Tree Removal.....	7
4.0 Condition 4.1).....	7
5.0 Condition 5.1).....	7
6.0 Summary	8
TABLE 1 Potential Impacts and Mitigation Measures	
APPENDIX A Location Map	
APPENDIX B Conditions of Approval	
APPENDIX C Letter to the OEB – Change to Construction	
APPENDIX D Photograph Inventory	

1.0 INTRODUCTION

This Interim Monitoring Report is provided in compliance with the Ontario Energy Board (“Board”) Order EB-2013-0420 granting Union Gas Limited (“Union”) “Leave to Construct” approximately 13 kilometres of Nominal Pipe Size (NPS) 20 inch diameter natural gas pipeline in the Town of Lakeshore in the County of Essex.

The pipeline commenced at East Puce River Road and proceeded east to the Phase I end point at Golfview Drive (4th Concession Rd.) for a distance of 11 km. A map of the pipeline route is included in Appendix A.

The requirements for and details of this report are outlined in the specific conditions issued by the Board in its Order dated March 28, 2013 as listed below. The Conditions of Approval can be found in Appendix B.

Accordingly, the purpose of this Interim Monitoring Report is to fulfill these conditions.

1.0 Condition 1.1

Union Gas Limited (“Union”) shall construct the facilities and restore the land in accordance with its application and evidence filed in EB-2013-0420 except as modified by this Order and these Conditions of Approval.

Condition 1.3

Union Gas 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.

Condition 1.4

Union Gas 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.

2.0 Condition 2.4

Union Gas 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.

3.0 Condition 3.1

Both during and after construction, Union Gas shall monitor the impacts of construction, and shall file four copies of both an interim and 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 Gas 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.

Condition 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.

4.0 Condition 4.1

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

2.0 BACKGROUND

Union was granted approval to construct the NPS 16 Panhandle Replacement Project on March 28, 2013. Construction was initiated on June 18, 2014 with the pipeline placed into service on September 23, 2014 and cleanup for the year completed by the pipeline contractor on November 14, 2014. Post construction tiling was initiated on October 1, 2014 and completed for the season on January 6, 2015. Construction progressed from East Puce River Road in an easterly direction to Golfview Drive with the following order of operations: topsoil removal, stringing, welding, joint coating, directional drilling, trenching, lowering-in, tie-ins, backfilling, testing, clean-up and post construction tiling.

Union will return to the right-of-way in spring 2015 to complete the following activities: post construction tiling, repair any subsidence on the right-of-way, ensure there is adequate stability and re-vegetation on all watercourse crossings, perform a general overview of the right-of-way and complete any additional clean-up that may be required.

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 evidence filed in EB-2013-0420 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 and has restored the land according to the evidence in support of its application.

3.2 Condition 1.3

Union Gas 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 Environmental Study Report (ER) along with all directives identified by the OPCC.

3.3 Condition 1.4

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

Union did not complete the entire project as proposed in the pre-file evidence. The project was divided into two phases. Phase I which was completed in the summer of 2014 entailed the replacement of the NPS 16 inch with a new NPS 20 inch between East Puce River Road and Golfview Drive, a distance of approximately 11 Kilometres. Phase II will be completed in the summer of 2015.

A change in the location of the pipeline as presented in the pre-filed evidence also occurred between East Puce River Road and Renaud Line. Originally the pipeline was to be constructed on lands owned by Hydro One however due to conditions imposed by Hydro One, it was determined that the most efficient and cost effective solution would be to shift the pipeline approximately 20 metres south onto land owned by the Town of Lakeshore.

A copy of the letter send to the Ontario Energy Board informing them of the changes can be found in Appendix C.

3.4 Condition 2.4

Union Gas 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 Interim Monitoring report shall confirm that the work has been performed according to the Board's Order.

3.5 Condition 3.1

Both during and after construction, Union Gas shall monitor the impacts of construction, and shall file four copies of both an interim and 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 eighteen months of the in-service date. Union Gas 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.

3.1.1 Report Circulation

Four (4) copies of this Interim Monitoring Report are provided to the Board.

3.1.2 Landowner Concerns

Union's complaint tracking system, which identifies the current status of landowner complaints received as a result of pipeline construction, was/is in effect.

A complaint is identified as a concern raised by a landowner, which has not been resolved to the landowner's satisfaction within three (3) working days. There were no complaints entered into the complaint tracking system. During construction, issues that were minor in nature were raised to Union and their contractor. These were dealt with by Union or the Contractor in an expeditious manner.

The final monitoring report will address any outstanding issues if they should arise. 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 3.2

The interim monitoring report shall confirm Union Gas'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.

In fulfilment of Condition 3.2, Table 1 summarizes the construction effects and general mitigation measures carried out during construction. All mitigation techniques used throughout construction will also be implemented during cleanup activities as required.

3.2.1 Monitoring Programs

3.2.1.1 Archaeological Assessment

Union retained the services of Stantec to conduct a Stage 1 and Stage 2 archaeological assessment study in November and December 2013 which identified one archaeological site along the west side of Belle River. A Stage 3 and Stage 4 assessment were undertaken on the site with artifacts comprised of late 19 century pieces from a previous homestead of the landowner. The easement was cleared of all artifacts prior to the start of construction.

3.2.1.2 Watercourse Monitoring

It was necessary to cross eleven (11) regulated watercourses as part of the project. Ten crossings were performed using the horizontal directional drill (HDD) method and one using the dam and pump method. All crossings were approved and permitted by the Essex Region Conservation Authority.

Watercourses were protected prior to, during and following construction by installing sediment fencing, straw bales and erosion control matting. Disturbed areas adjacent to the watercourses were seeded immediately following the installation of the pipeline.

Watercourses that were susceptible to erosion were checked after excessive rainfall to verify the effectiveness of the sediment control devices. These watercourses will be reviewed for stability and vegetation re-establishment in the spring of 2015 and any necessary mitigation will be undertaken at this time.

3.2.1.3 Tree Removal

Limited single tree removal was undertaken prior to construction. Union will work with the affected landowners to replace individual trees in spring 2015.

4.0 Condition 4.1

Union Gas shall offer the form of easement agreement approved by the Board to each landowner, as may be required, along the route of the proposed work.

All landowners affected by construction have received the same easement agreement as approved by the Board.

5.0 Condition 5.1

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

Union Gas obtained the following environmental permits for construction:

Essex Region Conservation Authority - Watercourse Crossings

- For Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Ontario Regulation 148/06.
- Application for Permit No. 20/14 - Watercourse Crossings

Ministry of Natural Resources – Species at Risk

- Letter of Advice – AYL-L-005-14

6.0 SUMMARY

This Interim Monitoring Report has been prepared as per conditions in the Board Order EB-2013-0420. The 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 Unions' monitoring programs. It is anticipated that these measures will effectively eliminate any long-term impacts to the environment.

A review of the pipeline route will be undertaken in the spring of 2015 to determine if any additional clean-up will be required. Should additional clean-up be required, it will be completed as soon as conditions allow in spring 2015.

A Final Monitoring Report will be prepared to evaluate the success of the measures and if necessary outline areas in need of additional restoration.

“Table 1”

Potential Impacts and Mitigation Measures

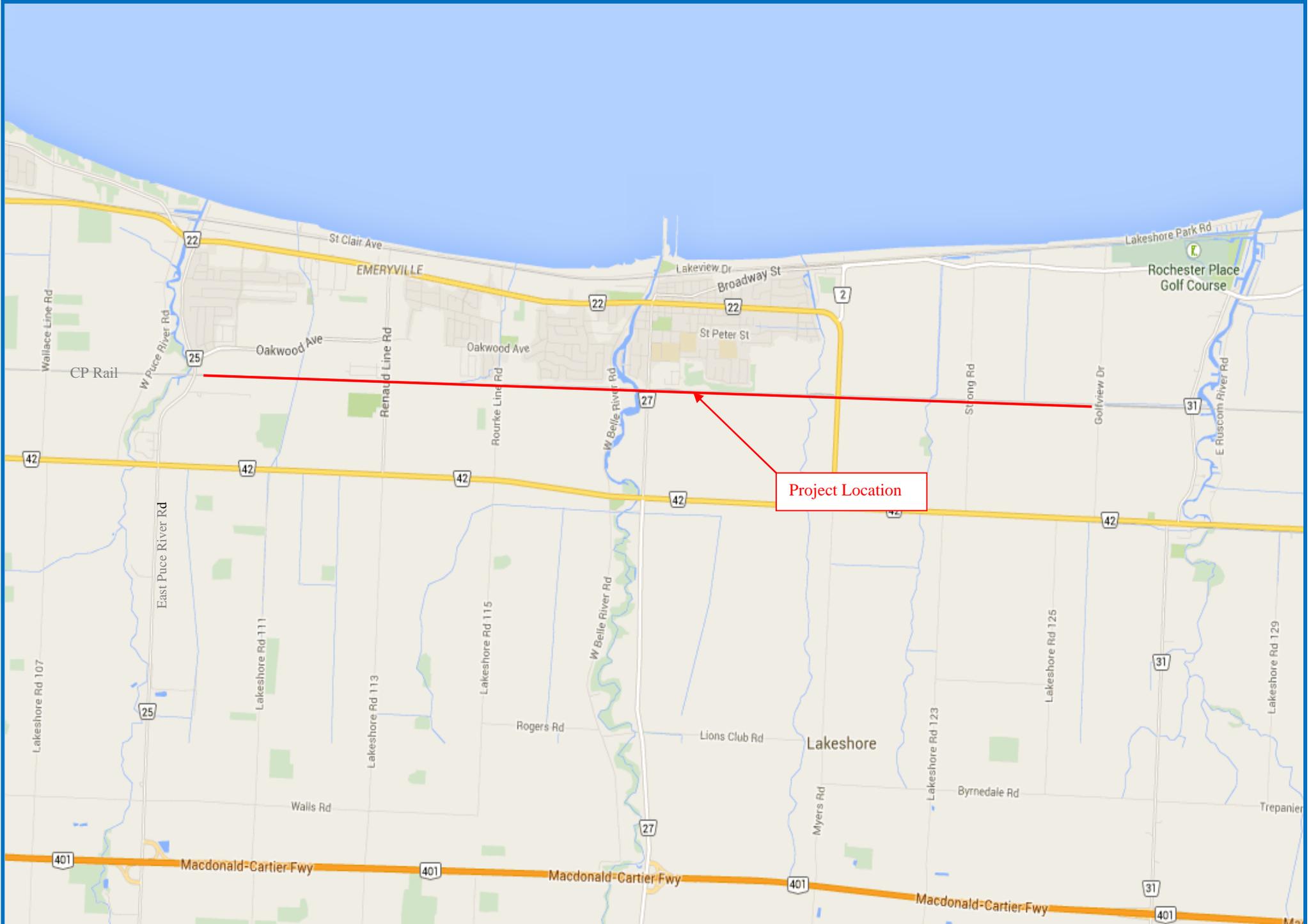
TABLE 1: MITIGATION SUMMARY

Issue	Potential Impact	Proposed Mitigation
a) Archaeology	Disturbance to cultural heritage resources.	<ul style="list-style-type: none">• Prior to any activities associated with the project, an archaeological survey was completed and concluded that the pipeline corridor was free from archaeological concern. No artifacts were found during construction.
b) Species At Risk (SAR)	Encountering SAR	<ul style="list-style-type: none">• Followed recommendations outlined in Environmental Report and the Ministry of Natural Resources Letter of Advice
c) Landowner Concerns	Disruption to landowners and tenants	<ul style="list-style-type: none">• Union provided the landowners/tenants with the telephone numbers of Company personnel.• A Landowner Relations Program was established to track complaints during construction.• To date there have been no complaints entered into the complaint tracking system.
d) Watercourses	Water quality concerns	<ul style="list-style-type: none">• Union adhered to Company specifications for watercourse crossings.• Union complied with all conditions of approval from the Essex Region Conservation Authority.
e) Road Side Ditches	Water quality concerns	<ul style="list-style-type: none">• Ensured ditches were returned to pre-construction condition as quickly as possible.
f) Paved Driveways and Roadways	Disruption to local traffic, landowners and tenants	<ul style="list-style-type: none">• All paved roadways and driveways were bored if practical.• If it was not possible to bore driveways and roads, steel plates were on site to provide access to landowners and tenants.• Union maintained one lane of traffic open if possible.• Traffic controls were implemented as required.• Driveways were repaired as soon as possible.
g) Public Safety	Public safety concerns	<ul style="list-style-type: none">• Company inspectors ensured public safety on construction site.• Ensured proper signage and flag persons if required.
h) Construction Equipment	Disruption to landowners and tenants	<ul style="list-style-type: none">• Equipment was stored well off road shoulders or in a nearby yard when not in use.
i) Construction Noise	Disturbance to landowners and tenants	<ul style="list-style-type: none">• Construction was carried out during daylight hours whenever possible.• Ensured equipment was properly muffled.

Issue	Potential Impact	Proposed Mitigation
j) Traffic	Disruption to local citizens	<ul style="list-style-type: none"> • At least one lane of traffic was maintained at all times. • Flag persons and warning devices were used to notify traffic of the construction zone in accordance with Ministry of Transportation standards.
k) Fuel Storage and Handling	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 (i.e. Within 100 metres) • Spill clean-up materials were stored on site and available in the event of a spill. Spills or leakage were to be reported to the appropriate authority immediately (Ministry of the Environment Spills Action Centre at 1-800-268-6060) • No reportable spills were recorded during construction.

Appendix A

Location Map



Project Location

Appendix B

Conditions of Approval

EB-2013-0420

**Union Gas Limited
Leave to Construct Application**

**Board Staff Proposed
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-2013-0420 except as modified by this Order and these Conditions of Approval.
- 1.2 Unless otherwise ordered by the Board, authorization for Leave to Construct shall terminate December 31, 2014, unless construction has commenced prior to that date.
- 1.3 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.
- 1.4 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.
- 1.5 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 shall explain all significant variances from the estimates filed in the 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 and Agreements

- 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, and shall provide copies of all such written approvals, permits, licences, and certificates upon the Board's request.

Appendix C

Letter to the OEB – Change to Construction



uniongas

A Spectra Energy Company

June 9, 2014

BY RESS & Courier

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

Dear Ms. Walli:

**Re: Union Gas Limited ("Union")
Panhandle NPS 16 Replacement Project
Board File # EB-2013-0420**

This letter is to update the Board on the above captioned project.

Pursuant to Condition 2.3, construction will commence on June 16, 2014.

I would also like to inform the Board of some changes to Union's pre filed evidence.

Union will not be completing the entire project in 2014. Union has broken the project down into Two Phases. Phase One which be competed in 2014 will replace the pipeline between East Puce Road and Golf View Road, a distance of approximately 11 kilometers. Phase Two is currently proposed to include the remainder of the area approved in the EB 2013-0420 decision, and an additional 3 kilometers at the western terminus of the original project. This change is being made to balance the construction and costs over the two years of the project. Union will be making an application to the OEB in the 3rd quarter of 2014 for these additional facilities.

Between East Puce River Road and Renaud Line, Union is proposing to shift the location of the proposed pipeline approximately 20 meters south of the location shown in Union's pre filed evidence. This will result in the pipeline being constructed on lands owned by the Town of Lakeshore who have agreed to this change and have granted Union the necessary land rights to construct the pipeline. Union's original plan had been to construct the pipeline on lands owned by Hydro One. While Hydro One did approve Union's request to construct the pipeline on their lands, they imposed numerous conditions on the construction of the proposed facilities. After reviewing theses conditions, Union determined that it was more efficient and cost effective to shift the pipeline to the adjacent lands owned by the Municipality

If you have any questions or required any addition l information please contact the undersigned.
Sincerely,

[original signed by]

W. Wachsmuth
Senior Administrator, Regulatory Projects
Encl.

cc: Pascal Duguay
Zora Crnojacki
George Adams
Gary Collins

Appendix D

Photo Inventory



Although no Species At Risk were detected within the proposed right-of-way during pre-construction surveys, there was still the potential for SAR to be encountered during construction. Therefore reptile barrier fencing was installed at sections in proximity to potential snake and turtle habitat.



Measurements are taken to distinguish between topsoil and subsoil. A dozer is then used to perform the operation of separating the two layers under the supervision of a Union Gas Inspector.



To gain access to the right-of-way it was necessary to install temporary culverts within roadside drains. A culvert is placed within the drain and covered with a geotechnical fabric.



The fabric is then covered with granular material to create a solid driving surface. A permit was obtained from the Essex Region Conservation Authority prior to all culvert installations.



Bridges were used to cross larger watercourses. Cranes lifted the bridges in place onto a base of swamp mats to add stability. Installing bridges in this fashion causes the least amount of disruption to the bank of the watercourse.



Once the bridge has been removed, there is very little disturbance to the bank.



The majority of the watercourses were crossed using the Horizontal Directional Drill method. This ensured the least amount of disturbance to the watercourses.



Upon completion of the pilot bore, the hole is reamed with increasingly larger drill heads until the desired diameter is achieved. The pipe is then attached to a reamer and pulled into place.



Following construction and prior to topsoil replacement the agricultural fields are chisel ploughed to relieve compaction.



Upon completion of the chisel ploughing, the topsoil is replaced disced and returned into production.