

August 8, 2013

BY COURIER & RESS

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”)  
Dawn Parkway NPS48 Replacement Exemption Request (Flamborough)  
EB-2013-0284**

Union hereby requests an Order granting leave to construct approximately 70 metres of NPS48 natural gas pipeline pursuant to s. 90(1) of the Ontario Energy Board Act, 1998, S.O. 1998 c. 15 Sch. B (the “Act”). A package of supporting material is attached.

This pipeline is needed to replace a portion of the Dawn Parkway system which must be replaced for integrity issues.

Union further requests an exemption, pursuant to s. 95 of the Act, from any requirement to hold a hearing pursuant to the requirements of s. 90(1) of the Act.

Replacement of the existing pipeline would not require Ontario Energy Board leave to construct approval, if the existing pipe was removed and a new pipeline was constructed in the existing easement. However, as the section of pipeline to be replaced is under Highway 6, Union is proposing to abandon the existing pipeline in place and obtain a new land right for the replacement pipeline. As new lands rights will be required for the project, the project meets the requirements of s. 90(1) of the Act, requiring leave to construct.

Commencement of construction of the proposed pipeline is scheduled for September 2013.

In Union’s view, there are a number of reasons why this case warrants an exemption including:

1. Unions pipeline integrity program has a demonstrated immediate need for the pipeline replacement;

2. The directly affected landowners have not identified any issues with the project. The landowners have signed the necessary temporary agreements needed to complete the project. The permit process with MTO from the Highway 6 crossing has been started and MTO has provided Union with a letter of non-objection to the project;
3. The alternative to the proposed project would be to remove the existing pipeline and construct a new pipeline across Highway 6. This alternative is not practical as the pipeline is under the main highway between Guelph and Hamilton;
4. Union has completed an environmental screening for the replacement work. If the proposed mitigation measures are followed, there will be no long term significant environmental impacts as a result of this project;
5. In order to ensure that there is no disruption of services to customers, the pipeline must be completed by November 2013.

Union respectfully requests the Ontario Energy Board initiate the process to review this request as soon as possible.

If you require additional information, please contact Mark Murray, Manager, Regulatory Projects, Union Gas Limited at 519-436-4601.

Yours truly,

[original signed by]

Dan Jones  
Assistant General Counsel  
:mjp  
Encl.

cc: Pascale Duguay, Manager Facilities Applications  
Zora Crnojacki, Project Advisor

**DAWN PARKWAY NPS48**  
**REPLACEMENT PROJECT (FLAMBOROUGH)**

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**Project Summary**

1. Union Gas Limited ("Union"), pursuant to Section 90(1) of the Ontario Energy Board Act, requests approval from the Ontario Energy Board ("OEB") for leave to construct approximately 70 metres of NPS48 hydrocarbon (natural gas) pipeline ("Proposed Pipeline"). Union is proposing to replace approximately 70 metres of the Dawn Parkway NPS48 pipeline ("Pipeline") in the vicinity of Lot 11, Concession 7 and Lot 13, Concession 9 in the City of Hamilton (formerly Town of Flamborough) (the "Project"). The location of the Proposed Pipeline is shown on Schedule 1.
2. The affected section of the Pipeline was constructed in 1989 and has been inspected as part of Union's Integrity Management Program. Results of scheduled inspections in September 2012 and subsequent analysis of report in January 2013 identified integrity issues in the vicinity of the Pipeline's crossing of Provincial Highway 6 owned by the Province of Ontario Ministry of Transportation ("MTO"), located approximately between Lot 11, Concession 7 and Lot 13, Concession 9, in the City of Hamilton, which could pose safety and security of supply concerns if not addressed.
3. Union is proposing to abandon approximately 45 metres of the Pipeline in place. The Proposed Pipeline will be constructed adjacent to the Pipeline and will require new land rights. Union proposes to construct the Proposed Pipeline using a conventional auger bore to go under Provincial Highway 6.
4. The estimated costs of the project are \$3,915,000.
5. Union has discussed the Project with the directly affected landowners along the route of the Proposed Pipeline. Union is in the process of obtaining the necessary rights from MTO to

1 complete the crossing. The landowners adjacent to Provincial Highway 6 have not identified  
2 any concerns with the Project and have agreed to sign the necessary temporary easement  
3 agreements to complete the Project.

4 6. Union has completed an environmental review for the Project. This review did not identify  
5 any long term significant environmental impacts as a result of the Project.

6 7. Union is proposing to construct the Proposed Pipeline commencing in September 2013.  
7 Union requests Ontario Energy Board approval by August 30, 2013.

#### 8 **Background**

9 8. Since 2002, Union has had an extensive pipeline maintenance and integrity management  
10 program in place that includes the regular monitoring of pipelines for corrosion, leaks or other  
11 potential damage to ensure its pipelines remain in safe operating condition.

12 9. As part of this program, Union regularly conducts inline inspections of its pipelines using  
13 tools to determine the condition of the pipelines. Based on the results of these assessments,  
14 Union takes appropriate mitigation action to address any integrity issues that are found.

15 10. The Pipeline was initially inspected using inline inspection tools in September 2012. The  
16 inspection completed in 2012 identified metal loss on a section of the pipeline that Union is  
17 proposing to replace.

18 11. The section of the pipeline with metal loss is under Provincial Highway 6 and therefore  
19 inaccessible for direct inspection. The most effective action to manage and ensure the long  
20 term integrity of the pipeline, while minimizing impacts to the environment, is to abandon the  
21 existing pipeline in place and construct the Proposed Pipeline.

12. If the replacement is delayed, the integrity concerns may become more serious.

### **Proposed Facilities**

13. Union determined that upsizing the Pipeline was not required as this is a very short length of pipeline and that the Pipeline should be replaced size for size.

### **Project Costs and Economics**

14. The estimated costs for the Project are \$3,915,000. A detailed breakdown of these costs can be found at Schedule 2.

15. A Discounted Cash Flow report has not been completed as the Project is underpinned by the integrity and replacement requirements and there are no new contracts associated with this replacement.

### **Design and Construction**

16. The Proposed Pipeline will have a Maximum Operating Pressure (“MOP”) of 6160 kPa.

17. The design and pipe specifications are outlined in Schedule 3. All the design specifications are in accordance with the *Ontario Regulations 210/01* under the *Technical Standards and Safety Act 2000, Oil and Gas Pipeline Systems*. This is the regulation governing the installation of pipelines in the Province of Ontario.

18. In consideration for future potential development along the route, the Proposed Pipeline is designed to meet Class 3 location requirements. The actual current class location of the area is Class 2.

19. To determine Class Location, CSA Z662-11 uses a classification system that takes into account land use and population density. The classifications are as follows:

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- 1) Class 1 areas consist of 10 or fewer dwellings;
- 2) Class 2 areas consist of 11 to 45 dwellings, or a building occupied by 20 or more persons during normal use such as playgrounds, recreational areas, or other places of public assembly as well as industrial installations;
- 3) Class 3 areas consist of 46 or more dwellings.
- 4) Class 4 contains a prevalence of buildings intended for human occupancy with 4 or more stories above ground.

20. The Proposed Pipeline will have an outside diameter of 1219 mm and a minimum wall thickness of 15.6 mm. The pipe will have specified minimum yield strength of 483 MPa.

21. The Proposed Pipeline will be hydrostatically tested in accordance with the Ontario Regulation requirements.

22. The minimum depth of cover will be in accordance with Clause 4.11 of the CSA Code Z662-11. The depth of cover of that portion of the Proposed Pipeline beneath Provincial Highway 6 is governed by MTO and will be approximately four metres in accordance with MTO policies.

23. The majority of the Proposed Pipeline will be constructed using trenchless methods. Schedule 4 describes the General Techniques and Methods of Construction that will be employed in the construction of the Proposed Pipeline. This Schedule details the following activities; clearing, stringing of pipe, trenching, welding, backfilling and clean up. Union continuously updates

1 and refines its construction procedures to minimize potential impacts to lands and has since  
2 seen many improvements as a result of better construction practices.

3 24. Schedule 5 indicates that construction will commence in September, 2013 and be completed  
4 by the end of November 1, 2013.

5 25. The portion of the Pipeline to be abandoned in place will be in compliance with TSSA  
6 guidelines. The TSSA abandonment guidelines can be found at Schedule 6.

7 **Landowners**

8 26. Union will require crossing permits or agreements from MTO. MTO has provided  
9 confirmation indicating they have no objection to the Project. Copy of confirmation is  
10 attached as Schedule 7.

11 27. Union will not require any fee simple purchases of land to complete the Project.

12 28. The temporary easements from the landowner to the west of Provincial Highway 6 for  
13 construction of the Proposed Pipeline have been obtained.

14 29. Union owns the lands to the east of Provincial Highway 6 in fee simple. All construction  
15 activities will take place on Union's lands.

16 30. Schedule 8 identifies the maps that show the running line and the land rights required for the  
17 Proposed Pipeline.

18 31. Schedule 9 identifies the temporary land use rights Union has obtained for the construction of  
19 the Proposed Pipeline.



32. At the conclusion of construction, Union will seek a Full and Final Release from the affected landowner. This Full and Final Release will include compensation for any damages caused or attributed to the Project.

33. Union has implemented a comprehensive program to provide landowners, tenants, and other interested persons with information regarding the Proposed Pipeline. Project information was distributed through correspondence and meetings with the landowners.

34. After construction, negotiations with landowners will continue, where necessary, to settle any damages that were not foreseen or compensated for, prior to construction.

#### **Environmental**

35. Union retained the services of Stantec Consulting Ltd. to review the route of the Proposed Pipeline, and identify the environmental features that could be impacted by Proposed Pipeline's construction. Stantec's Environmental Review ("ER") can be found at Schedule 10

36. Union has also completed an environmental screening for the project consistent with the requirements of E.B.O. 188. The results of this screening can be found at the Environmental Checklist as Schedule 11.

37. The results of the Environment Review indicates that if the mitigation measures identified in the environmental report are followed there will be no long term significant environmental impacts.

38. Union will implement a program dealing with environmental inspection. This program will ensure that the recommendation in the ER is followed. An inspector trained in environmental

1 issues will monitor construction activities and ensure that all activities comply with the  
2 mitigation measures found in the ER. Environmental field studies will start in July 2013.

- 3 39. The total estimated environmental mitigation costs associated with the construction of the  
4 proposed facilities are \$65,000. A breakdown of these costs can be found at Schedule 12.  
5 The environmental costs are included in the Projects costs.

6 **First Nations and Métis**

- 7 40. Union has a long standing practice of consulting with First Nations and Métis, and has  
8 programs in place whereby Union works with them to ensure they are aware of Union's  
9 projects and have the opportunity to participate in both the planning and construction phases  
10 of the Project.

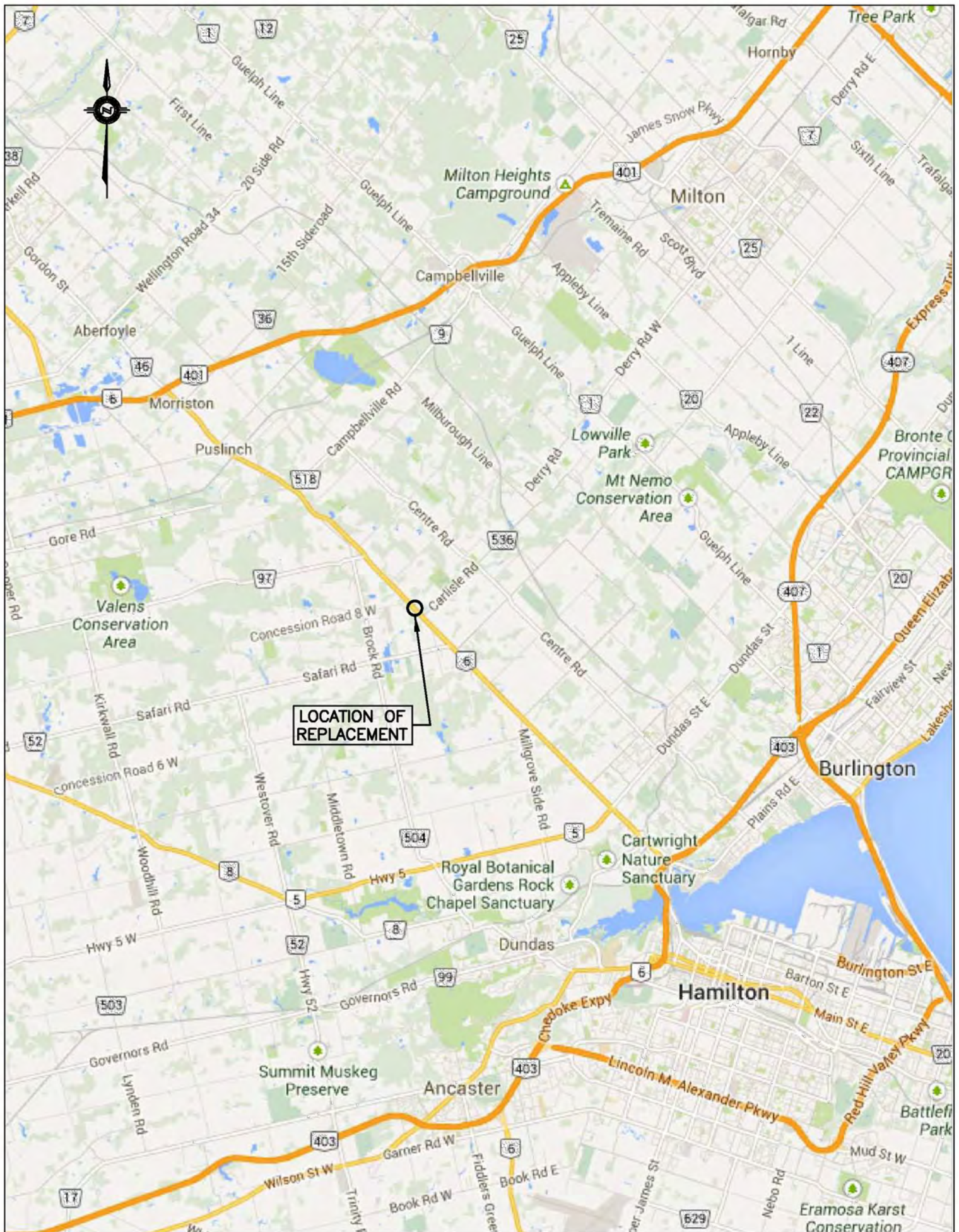
- 11 41. Union has an extensive data base and knowledge of First Nations and Métis organizations in  
12 Ontario and consults with the Tribal organizations and the data bases of the Ministry of  
13 Natural Resources, Ministry of Aboriginal Affairs and Aboriginal Affairs and Northern  
14 Development Canada to ensure consultation is carried out with the most appropriate groups.

- 15 42. Union has signed a General Relationship Agreement with the Métis Nation of Ontario which  
16 describes Union's commitments to the Métis when planning and constructing pipeline  
17 projects.

- 18 43. Union sent email notifications on July 31, 2013 to the following First Nations and Métis  
19 regarding the Project. Copies of these emails are attached as Schedule 13. Due to the size,  
20 scope and location of the Project, it is not expected that these organizations will have any  
21 concerns with the Project.

<b>Title</b>	<b>First Name</b>	<b>Last Name</b>	<b>Agency</b>	<b>Email Address</b>	<b>Address</b>	<b>City</b>	<b>Prov</b>
Chief	William	Montour	Six Nations of the Grand	wkm@sixnations.ca	1695 Chiefswood Box 5000	Ohswéken	Ontario
Consultation Manager	Joanne	Thomas	Six Nations of the Grand	jthomas@sixnation.s.ca	1695 Chiefswood Box 5000	Ohswéken	Ontario
Interim Executive Director	Hazel	Hill	Haudenosaunee Development Institute	hazelehill@gmail.com	16 Sunrise Court	Ohswéken	Ontario
Chief	Bryan	LaForme	Mississaugas of New Credit	bryanlaforme@newcreditfirstnation.com	8545 Townline Road RR 1	Hagersville	Ontario
Consultation Manager	Carolyn	King	Mississaugas of New Credit	carolyn.king@newcreditfirstnation.com	8545 Townline Road RR 1	Hagersville	Ontario
Director Lands Resource and Consultation	Mark	Bowler	Métis Nation of Ontario	MarkBowler@metisnation.org	75 Sherbourne St Suite 311	Toronto	Ontario
Consultation Manager	James Wagar		Métis Nation of Ontario	JamesW@metisnation.org	75 Sherbourne St Suite 311	Toronto	Ontario

- 1
- 2 44. During construction, Union has inspectors in the field who are available to First Nation's and
- 3 Métis organization as a primary contact to discuss and review any issues that may arise during
- 4 construction.





## TOTAL ESTIMATED PIPELINE CAPITAL COSTS

### DAWN PARKWAY NPS48 REPLACEMENT PROJECT

#### Pipeline and Equipment

NPS 48 Steel Pipe, Coated 70 metres	\$103,000
Fittings & Miscellaneous Material	\$143,000

Sub-Total \$246,000

Stores Overhead \$8,000

**Total Pipeline and Equipment** \$254,000

#### Construction and Labour

Trenchless Install of 70 metres of NPS 48 Steel Pipe	\$2,562,000
Clearing, Stripping topsoil, Dewatering construction area	
Testing, Dewatering, Drying Pipe	
Grouting & Miscellaneous Contract Labour	

Company Labour, X-Ray, Construction Survey, Legal,  
Environmental Fees and Consultants \$421,000

Easements, Lands & Damages \$25,000

**Total Construction and Labour** \$3,008,000

**Total Pipeline and Equipment and Construction and Labour** \$3,262,000

**Contingencies** \$653,000

**Total Estimated Pipeline Capital Costs – 2013 Construction** \$3,915,000

Includes the Estimated Environmental Costs Identified in Schedule 12.

**DAWN PARKWAY NPS48**  
**HIGHWAY 6 REPLACEMENT PROJECT**  
**DESIGN AND PIPE SPECIFICATIONS**

**Design Specifications: NPS 48**

Class Location	-	Class 2
Design Class Location	-	Class 3
Design Factor	-	0.8
Location Factor (General)	-	0.7
Location Factor (Roads/Railways)	-	0.625
Maximum Design Pressure	-	6160 kPa
Maximum Operating Pressure	-	6160 kPa
Test Medium	-	Water
Test Pressure	-	8624 kPa
Valves/Fittings	-	PN 100
Minimum Depth of Cover	-	1.2 m

**Pipe Specifications:**

Size	-	NPS 48
Outside Diameter	-	1219 mm
Wall Thickness	-	15.6 mm
Grade	-	483 MPa
Type	-	Double Submerged Arc Weld
Description	-	C.S.A. Standard Z245.1-93
Category	-	Cat. II, M5C
Coating	-	Fusion Bond Epoxy and Abrasion Resistant Epoxy-Urethane
% SMYS	-	49.8%

## GENERAL TECHNIQUES AND METHODS OF CONSTRUCTION

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1. Union Gas Limited (“Union”) will provide its own inspection staff to enforce Union’s construction specifications and *Ontario Regulation 210/01 under the Technical Standards and Safety Act 2000, Oil and Gas Pipeline Systems*.
2. Pipeline construction is divided into several crews that create a mobile assembly line. Each crew performs a different function, with a finished product left behind when the last crew has completed its work.
3. Union’s contract specifications require the contractor to erect safety barricades, fences, signs or flashers, or to use flag persons as may be appropriate, around any excavation across or along a road.
4. It is Union’s policy to restore the areas affected by the construction of the pipeline to “as close to original condition” as possible. As a guide to show the “original condition” of the area, photos and/or a video will be taken before any work commences. When the clean up is completed, the approval of the landowner or appropriate government authority is obtained.
5. Construction of the pipeline includes the following activities:

### **Locating Running Line**

6. Union establishes the location where the pipeline is to be installed (“the running line”). For pipelines within road allowances, the adjacent property lines are identified and the running line is set at a specified distance from the property line. For pipelines located on private easement, the easement is surveyed and the running line is set at the specified distance from the edge of the easement. The distance from the start of the pipeline (or other suitable point) is marked on the pipeline stakes and the drawings.

### **Clearing and Grading**

7. The right-of-way is prepared for the construction of the pipeline. When required, bushes, trees and crops are removed and the ground leveled. When required, the topsoil is stripped and stored, and/or sod is lifted.

**Preparing for Excavation**

8. Where the groundwater table is above the bottom of planned excavations and subsurface soils are unstable when saturated or permeability allows high volumes of water to enter excavations, the groundwater table is temporarily lowered through the installation of well points.

**Removing Existing Pipeline**

9. The existing trench is excavated exposing the existing pipeline. The spoil material is placed onto the easement, separate from the topsoil. The existing pipeline is removed from the trench, cut into sections and trucked off site. The trench is then backfilled.

**Abandoning Existing Pipeline**

10. The existing pipe within the highway right of way can be abandoned in place. The abandoned sections are capped and filled with grout, a low density concrete.

**Stringing**

11. The joints of pipe are laid end-to-end on supports that keep the pipe off the ground to prevent damage to the pipe coating.

**Welding**

12. The pipe is welded into manageable lengths. The welds in steel pipe are radiographically inspected, if required, and the welds are coated.

**Burying**

13. Pipe will be buried using the trench method outside the road allowance and the trenchless method within the road allowance. All utilities that will be crossed or paralleled by the pipeline are located by the appropriate utility prior to installing the pipeline. Prior to trenching, all such utilities will be hand-located or hydro vacuumed.

**Trench Method:** Trenching is done by using a hoe excavator. Provisions are made to allow residents access to their property, as required. All drainage tiles that are cut during the trench excavation are flagged to signify that a repair is required. All tiles are measured and recorded as



to size, depth, type and quality. This information is kept on file with Union. If a repair is necessary in the future, Union will have an accurate method of locating the tile. Next, the pipe is lowered into the trench. For steel pipe, the pipe coating is tested using a high voltage electrical tester as the pipe is lowered into the trench. All defects in the coating are repaired before the pipe is lowered in. Next, if the soil that was excavated from the trench is suitable for backfill, it is backfilled. If the soil is not suitable for backfill (such as rock), it is hauled away and the trench is backfilled with suitable material such as sand. After the trench is backfilled, drainage tile is repaired.

**Rock Excavation:** Rock in solid beds or masses will be removed by “Hoe Ram”.

**Trenchless Method:** Trenchless methods are alternate methods used to install pipelines under railways, roads, sidewalks, trees and environmentally sensitive areas. The trenchless method proposed to install the NPS 48 pipeline under the highway is auger boring. This method involves establishing two excavations, one on each side of the road. Between the two excavations, an open-ended pipe will be pushed into the soil beneath the highway using hydraulic jacks. The spoil will be removed from the interior of the pipe by an auger and the soil removed from site.

### **Tie-Ins**

14. The sections of pipelines that have been buried using either the trench or trenchless method are joined together (tied-in).

### **Cleaning and Testing**

15. To complete the construction, the pipeline is cleaned, tested in accordance with Union's specifications using water.

### **Restoration**

16. The final activity is the restoration. The work area is leveled and grassed areas are re-seeded. Where required, concrete, asphalt and gravel are replaced to return the areas to as close to the original conditions as possible.

# Highway 6 NPS 48 Replacement Project - 2013 Construction Schedule

ACTIVITY	August				September					October				November				December				
	4	11	18	25	1	8	15	22	29	6	13	20	27	3	10	17	24	1	8	15	22	29
Field Survey Work																						
Access and Site Prep																						
Stringing																						
Welding																						
Crossing Preparation																						
Pressure Testing																						
Crossing Installation																						
Final Tie-ins																						
Abandon in place																						
Purge and Pressurize																						
Clean Up																						
In Service (Nov 1, 2013)																						
Spring Clean up (May 2014)																						



## **PIPELINE ABANDONMENT CHECKLIST**

### **PLANNING**

1. Has subsidence been considered for pipelines having a diameter greater than 323.9 mm (12 inches)?
2. Has the pipeline company notified the landowners and proper authorities (municipalities, MOE, MTO, MNR, etc.) of the abandonment?
3. Have abandonment procedures for crossings been agreed upon by utilities (road, railway, pipelines, etc.) and authorities responsible for rivers and streams crossed by the pipeline?
4. Has consideration been given to the effect of drainage in the area surrounding the abandoned pipeline, which may act as a conduit for ground water after the pipe is perforated by corrosion?
5. Has consideration been given to the removal of all the aboveground facilities?
6. Has consideration been given to any hazards posed to people, equipment, wildlife or livestock by any apparatus left in place above or underground?

### **IMPLEMENTATION**

1. Has the abandoned pipeline been physically isolated from the live pipeline?
2. Has the pipeline been drained of all fluids and adequately cleaned to prevent ground water contamination from hydrocarbon residue on the pipe wall after the pipe is perforated by corrosion?
3. Have all aboveground facilities been removed and has consideration been given to removing underground facilities such as anode beds and tanks?

### **LIABILITY/RISK MANAGEMENT**

1. Does the pipeline company have a contingency plan to remedy any contamination caused by the abandoned pipeline?
2. Has consideration been given to conducting post-abandonment surveillance programs?
3. Has consideration been given to maintaining signage after the pipeline is abandoned?
4. Has consideration been given to providing a locate service after the pipeline is abandoned?

**From:** Yeung, Richard (MTO) [<mailto:Richard.Yeung@ontario.ca>]  
**Sent:** August-07-13 4:46 PM  
**To:** O'Connor, Joel  
**Cc:** Kolet, Arie (MTO)  
**Subject:** RE: Union Gas Limited - NPS 48 Trafalgar Replacement(Highway 6) Letter of Non Objection

Hi Joel,  
By processing your permit, it implies MTO has no objection.  
Thx  
Richard

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**From:** Yeung, Richard (MTO) [<mailto:Richard.Yeung@ontario.ca>]  
**Sent:** August-07-13 2:50 PM  
**To:** O'Connor, Joel; Kolet, Arie (MTO)  
**Subject:** RE: Union Gas Limited - NPS 48 Trafalgar Replacement(Highway 6) Letter of Non Objection

Hi Joe,  
The proposed crossing on Highway 6 requires an MTO Encroachment permit. MTO will permit boring/tunnel under Highway 6. Open cut will not be permitted. As part of the permit application process, supporting documents for MTO to review and approve shall include but not be limited to plan, profiles, cross sections, foundation report, settlement monitoring scheme and construction traffic control. Please provide the information to the permit officer, Arie Kolet, for MTO to process.  
Thanks  
Richard



REGIONAL MUNICIPALITY OF HAMILTON—WENTWORTH  
TOWN OF FLAMBOROUGH  
CITY OF HAMILTON



No.	DATE	BY	APP'D	REMARKS
REVISIONS				
 <b>uniongas</b> A Spectra Energy Company				
DAWN PARKWAY NPS 48 REPLACEMENT HIGHWAY 6 REPLACEMENT PROJECT TOWN OF FLAMBOROUGH				
DRAWN BY G.T. HANUSZAK	DATE 2013-08-02	PLOT SPEC: 1/1000		
CHECKED BY	DATE	CAD CODE: PL86-00.dwg		
PROJECT COORDINATOR	DATE	FILE REVISION DATE 2013-00-00		
GRID No. N/A	SYSTEM 00	DRAWING No. PL86-00		



Landowner Line List  
NPS 48 Replacement Highway 6  
Pipeline Project

Temp File #	PIN	NAME & ADDRESS	PROPERTY DESCRIPTION	PERMANENT EASEMENT Dimensions (Metres) Area Length x Width Hectares	TEMPORARY EASEMENT Dimensions (Metres) Area Length x Width Hectares	MORTGAGE, LIEN/LEASE, EASEMENT
T4816-030	17534-0053 LT		PT LITS 11 & 12, Con 7, West Flamborough as in HL139614, Except Pts 1 & 2 Misc PL 2202; S/T AB37596, if any; S/T VM150165; VM154114; VM53125; VM53126 Flamborough, City of Hamilton			
	17523-0331 LT		KINGS HWY #6 LIVING BTN RDAL BTN CONS 8 & 9, EAST FLAMBOROUGH AND RDAL BTN CONS 9 & 10, EAST FLAMBOROUGH; RDAL BTN EAST FLAMBOROUGH & WEST FLAMBOROUGH; PT RDAL BTN CONS 7 & 8 WEST FLAMBOROUGH; PT LT 13, CON 9 EAST FLAMBOROUGH; PT LT 11, CON 7 WEST FLAMBOROUGH; PT LT 12, CON 7 WEST FLAMBOROUGH; PT LT 10, CON 8 WEST FLAMBOROUGH; PT LT 11, CON 8 WEST FLAMBOROUGH; AS IN CD311697; PT LT 11, CON 7 WEST FLAMBOROUGH, AS IN PT 2 MISC PL 2202; PT LT 12, CON 7 WEST FLAMBOROUGH, PART 1 & 2, 6284362; FLAMBOROUGH CITY OF HAMILTON		18.6 / 21.4 m x 80.0 / 64.0 m 0.36 / 0.34 ac	
	17523-0189 LT		PT LT 13, CON 9 EAST FLAMBOROUGH, PT LT 12, CON 9 EAST FLAMBOROUGH, PART 1, 62811323, PT LT 12, CON 9 EAST FLAMBOROUGH, PART 1, 62811338, PT LT 12, CON 9 EAST FLAMBOROUGH, PART 1 & 2, 62812940, PT LT 12, CON 9 EAST FLAMBOROUGH, PART 1, 6288272; S/T INTEREST, IF ANY, IN HL21428; S/T AB166558, AB171708, AB37594, HL101295, HL101296, HL236 20, HL47489, VM53127, VM53128, VM53129 FLAMBOROUGH CITY OF HAMILTON	45.73m N/A N/A		



Stantec Consulting Ltd.  
Suite 1 - 70 Southgate Drive  
Guelph ON N1G 4P5  
Tel: (519) 836-6050  
Fax: (519) 836-2493

**Stantec**

August 7, 2013

Union Gas Limited  
Attention: Mr. Tony Vadjia  
109 Commissioner's Road West  
London, ON N6J 1X7

**Reference: Environmental Review – NPS-48 Replacement, Highway 6**

### **Background**

Union Gas Limited ("Union Gas") has completed an integrity assessment of its NPS 48 inch Trafalgar Pipeline. The assessment determined the need to replace a section located underneath Highway 6, between Concession Road 8 and Carlisle Road, Hamilton, ON. Stantec Consulting Ltd. ("Stantec") was hired by Union Gas to complete an Environmental Review of the pipeline replacement.

The following analysis identifies potential environmental and socio-economic impacts that may occur as a results of the Highway 6 NPS-48 Replacement Project (the "Project"). Background data were collected and reviewed to identify environmental constraints, including consideration of the following information sources:

- The Natural Heritage Information Centre database was searched to obtain historic records of provincially rare, endangered, threatened or special concern species within the vicinity of the work area. Provincial wildlife atlases were also consulted for birds, mammals and reptiles and amphibian species (including those at risk) known to occur in the area;
- Department of Fisheries and Oceans Species at Risk mapping was used to identify any watercourses;
- The Ministry of Natural Resources' (MNR) Land Information Ontario database was used to gather information on the presence of provincially significant and unevaluated wetlands, Areas of Natural and Scientific Interest (ANSIs), conservation areas and parks;
- The Rural Hamilton Official Plan was consulted to identify any municipal land use designations;
- The 'Kirkwall Valve Site to Hamilton Valve Site 1989 EA Update' was reviewed to identify general information about the work areas and previous approvals;
- Air photos were interpreted to identify general information about the work areas; and,
- Site reconnaissance occurred on March 27, 2013, June 24, 2013 and July 30, 2013.

### **Environmental Constraints**

#### ***Physiography***

The location of the Project is in the Guelph Drumlin Field physiographic region. Soils in this area have been derived from glacial deposits and tend to be stony as a result. In some locations a layer of loam has been deposited on the surface of imperfectly drained soils. Deposits of loam on the surface of imperfectly drained

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**Reference: Environmental Review – NPS-48 Replacement, Highway 6**

soils can produce a muck/swamp like condition where soils are consistently wet from spring through the fall. As a result, these locations have not been cleared for agriculture.

Due to the potentially wet nature of the soils, and close proximity of aquatic features, efforts to minimize erosion and sedimentation should follow applicable Union Gas standards and procedures, including the use, inspection and maintenance of sediment barriers, erosion control measures and revegetation practices.

***Surficial Aquatic Features***

A tributary of the Bronte Creek watershed, located north of the Project location, is regulated by Conservation Halton.

Stantec recommends that consultation continue with Conservation Halton to determine whether the current pipeline replacement work zones overlap with any regulated lands. Should work occur within regulated lands, a permit under O. Reg. 162/06 will be required.

***Groundwater***

Due to the depth to water as determined through water well data (4.9 m), and the location of a drumlin on the west side of Highway 6 (which would force groundwater in the immediate area to rise), there is potential to encounter groundwater at shallow depths.

Stantec recommends that Union Gas confirm the depth to water prior to commencing the replacement. A Ministry of the Environment permit to take water will be required if groundwater taking exceeds 50,000 L/day.

***Vegetation***

ELC mapping of the Study Area was completed and is attached.

The majority of the Project lands consisted of old field meadow and marsh habitats, with woody wetland communities occurring at the southwestern and northeastern limits of the proposed work areas.

The vegetation community types for the eastern and western sides of the road are respectively described in **Table 1** and **Table 2** below.

**Table 1 Ecological Land Classification (ELC) Vegetation Types - East**

ELC TYPE	Community Description
<b>Cultural (CU)</b>	
<b>Cultural Meadow (CUM)</b>	
<b>CUM1-1</b> Dry – Moist Old Field Meadow With an inclusion of <b>MAS2-1</b>	This old field meadow community was fairly diverse, consisting of an open herbaceous layer made up primarily of grasses (bluegrass species, orchard grass, awnless brome, among others), with Canada thistle, goldenrod species, and common St. John's-wort. Scattered shrubs consisted of Russian and autumn olives, buckthorn, dogwoods and young trembling aspen. A small cattail mineral shallow marsh (MAS2-1) was located along the hedgerow along the northern field boundary (no surface pooling observed). It contained an herbaceous layer of cattail with lower growing sedge,



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Reference: Environmental Review – NPS-48 Replacement, Highway 6

**Table 1 Ecological Land Classification (ELC) Vegetation Types - East**

ELC TYPE	Community Description
<b>Swamp</b>	
<b>Deciduous Swamp (SWD)</b>	
<b>SWD3-3</b> Swamp Maple Mineral Deciduous Swamp with an inclusion of <b>MAM2-6</b> Broad-leaved Sedge Mineral Meadow Marsh	This mid-age swamp had a moderately open canopy of Freeman's maple, with some cottonwood at the edges and young green ash in the interior. The shrub layer was relatively thick and consisted mainly of gray dogwood in the interior, with willow shrubs along the southern edge where the marsh inclusion was found. The community was completely pooled at the time of the survey, with a water depth of at least 50cm. No emergent vegetation was observed in the interior of this community. The pool contained amphibians as ripples from swimming vertebrates were observed but no further details could be confirmed. The marsh inclusion contained some shallow surface water (approximately 5 cm) and was composed primarily of sedges (fox sedge, larger straw sedge, wooly sedge), with boneset, Joe-pye weed, and riverbank grape.
<b>Marsh (MA)</b>	
<b>Meadow Marsh (MAM)</b>	
<b>MAM2-2</b> Reed-canary Grass Mineral Meadow Marsh with a complex of <b>CUM1-1</b>	This marsh community was somewhat mixed in composition, consisting mainly of intermixed patches of reed-canary grass and European reed. A complex of dryer areas contained mainly upland meadow species such as goldenrod, tufted vetch, and awnless brome.

\*ELC code not included in the First Approximation of ELC for Southern Ontario

**Table 2 Ecological Land Classification (ELC) Vegetation Types - West**

ELC TYPE	Community Description
<b>Cultural (CU)</b>	
<b>Cultural Meadow (CUM)</b>	
<b>CUM1-1</b> Dry – Moist Old Field Meadow	This old-field meadow was made up of a mix of upland and lowland species, mainly consisting of grasses (poverty oat grass, awnless brome, orchard grass, among others), with bird's-foot trefoil, field-sow thistle, woodland strawberry, and sedges such as golden-fruited sedge and awl-fruited sedge. Young green ash was an occasional occurrence, becoming more frequent towards the southern boundary where the community type transitioned to lowland woodland. An American woodcock was noted in the transitional area.
<b>Swamp</b>	
<b>Thicket Swamp (SWT)</b>	
<b>SWT2-2</b> Willow Mineral Thicket Swamp	This thicket swamp was made up of a thick shrub layer of several willow species, with gray dogwood, silky dogwood, and red-osier dogwood as less abundant associates. Ground vegetation was also dense and consisted of grasses, young dogwood and willow saplings, sedges, asters, and bird's-foot trefoil. No surface pooling was observed.

August 7, 2013  
Page 4 of 6

**Reference: Environmental Review – NPS-48 Replacement, Highway 6**

**Table 2 Ecological Land Classification (ELC) Vegetation Types - West**

ELC TYPE	Community Description
<b>Marsh (MA)</b>	
<b>Meadow Marsh (MAM)</b>	
<b>MAM2-2</b> Reed-canary Grass Mineral Meadow Marsh with an inclusion of <b>MAS2-1</b> Cattail Mineral Shallow Marsh	This meadow marsh community was fairly large and as is typical of such communities consisted of a herbaceous layer dominated by reed-canary grass. The inclusion of cattail marsh mainly consisted of narrow leaved cattail with some European reed located near the ROW. There was some surface water in the cattail marsh (approximately 20cm in depth).

None of the vegetation communities are considered rare in the province.

A total of sixty-five (65) species of vascular plants were recorded in the Study Area, five (5) of which could not be identified to species level due to lack of identifying characteristics. Sixty percent (60%) of the identified species were native. Ninety-seven percent (97%) of these native plants have a rank of S5, indicating they are common and secure within Ontario. One species has a rank of S4 (apparently secure). All but one of the observed species had a CC value of moderate (46%) to lowest (54%) sensitivity to disturbance. Tufted loosestrife, observed in the small cattail inclusion on the eastern side of Hwy 6, has a CC value of 7 (high sensitivity to disturbance).

The wetland vegetation communities shown the attached Figure are regulated under O. Reg. 162/06 (in addition to the floodplain of Bronte Creek). The wetland communities will also be considered as part of the Hayesland - Christie Provincially Significant Wetland complex. Stantec recommends that, where possible Union Gas avoid disturbance to the wetland areas; where avoidance is not possible (i.e. on the western side of Highway 6), a permit under O. Reg. 162/06 will be required. Stantec recommends that consultation continue with Conservation Halton regarding permit requirements, which will include appropriate wetland restoration activities.

If clearing activities are required during the migratory bird nesting period (May 1 to July 31), nest surveys should be conducted by a qualified biologist to identify all nests under the Migratory Bird Convention Act using the following standard survey procedure: to the extent practical, tree and/or brush clearing should be completed prior to, or after, the breeding season for migratory birds (May 1 to July 31). Should clearing be required during the breeding bird season, prior to construction, surveys will be undertaken to identify the presence/absence of nesting birds or breeding habitat every 72 hours until clearing is complete or until July 31, whichever comes first. If a nest is located, a designated setback will be marked off within which no construction activity will be allowed while the nest is active. The radius of the setback width ranges from 5-60 m depending on the species. Setback widths are based on the species sensitivity and on setback width recommendations that have been reviewed and approved by Environment Canada.

August 7, 2013

Page 5 of 6

**Reference: Environmental Review – NPS-48 Replacement, Highway 6****Wildlife and Wildlife Habitat**

The location of the NPS-48 replacement has the potential to support wildlife species at risk protected under the *Endangered Species Act*: Eastern Meadowlark, Bobolink and Blanding's Turtle. No at risk species were observed during the field investigations.

Union Gas should continue to work with Stantec and the Ministry of Natural Resources during detailed design of the Project to avoid habitat where possible, to develop mitigation and protective measures as appropriate, and to ensure compliance with the *Endangered Species Act*. At a minimum, the mitigation and protective measures to protect wildlife and wildlife habitat should include the installation and maintenance of silt fence at selected locations to keep amphibians and reptiles out of the area of work.

**Land Use**

The western side of the NPS-48 replacement supports several trails used by recreational vehicles; trails were visible through aerial photography interpretation and during site reconnaissance. The location of the NPS-48 replacement has been designated by the City of Hamilton's Official Plan as a natural area, and the location of the replacement crossing is within Ontario's Greenbelt Plan. The eastern side of the NPS-48 replacement contains steel electrical towers, and the western side wooden utility poles.

Given the relatively small size of the western work area, no interaction will occur between replacement activities and existing recreational vehicle trails. While not required by legislation, Stantec recommends that Union Gas provide notification to the City of Hamilton of the planned activities. Stantec recommends that Union Gas review landowner information, to determine if Infrastructure Ontario owns/manages the property on which the electrical towers are located; it is the experience of Stantec that if an easement is required from Infrastructure Ontario, their environmental assessment process will be triggered.

**Archaeology**

Archaeology field work and approvals for the existing easement has been completed during initial construction. Archaeological methods and the corresponding report have been submitted to and accepted by the Ministry of Culture and Sport in 1990.

Given the historic nature of the archaeological work, archaeological investigations should take place at any locations where ground disturbance will occur.

August 7, 2013  
Page 6 of 6

**Reference: Environmental Review – NPS-48 Replacement, Highway 6**

**Summary**

Based on the above review, and provided that all referenced mitigation measures are properly implemented, pipeline relocation activities are not anticipated to have significant adverse environmental or socio-economic impacts.

**STANTEC CONSULTING LTD.**

A handwritten signature in black ink, appearing to read 'Mark Knight', written over a white background.

**Mark Knight, MA, MCIP, RPP  
Environmental Planner**



Legend

- Proposed Work Area - approximate
- Approximate Location of Crossing
- Highway
- Major Road
- Local Road
- ELC Vegetation Communities

Forest Communities (FO)

FOD Deciduous Forest

Swamp Communities (SW)

SWD Deciduous Swamp

SWD3-3 Swamp Maple Mineral Deciduous Swamp

SWT2-2 Willow Mineral Thicket Swamp

Marsh Communities (MA)

MAM2-2 Reed-canary Grass Mineral Meadow Marsh

Cultural Communities (CU)

CUM1-1 Dry - Moist Old Field Meadow

Other Units

AG Agriculture

RES Residential

Notes

- Coordinate System: NAD 1983 UTM Zone 17N
- Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2013.
- Orthographic imagery provided by © First Base Solutions, 2013. Imagery date 2012.



Stantec

August 2013

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Client/Project

NPS-48 Replacement  
Hwy 6

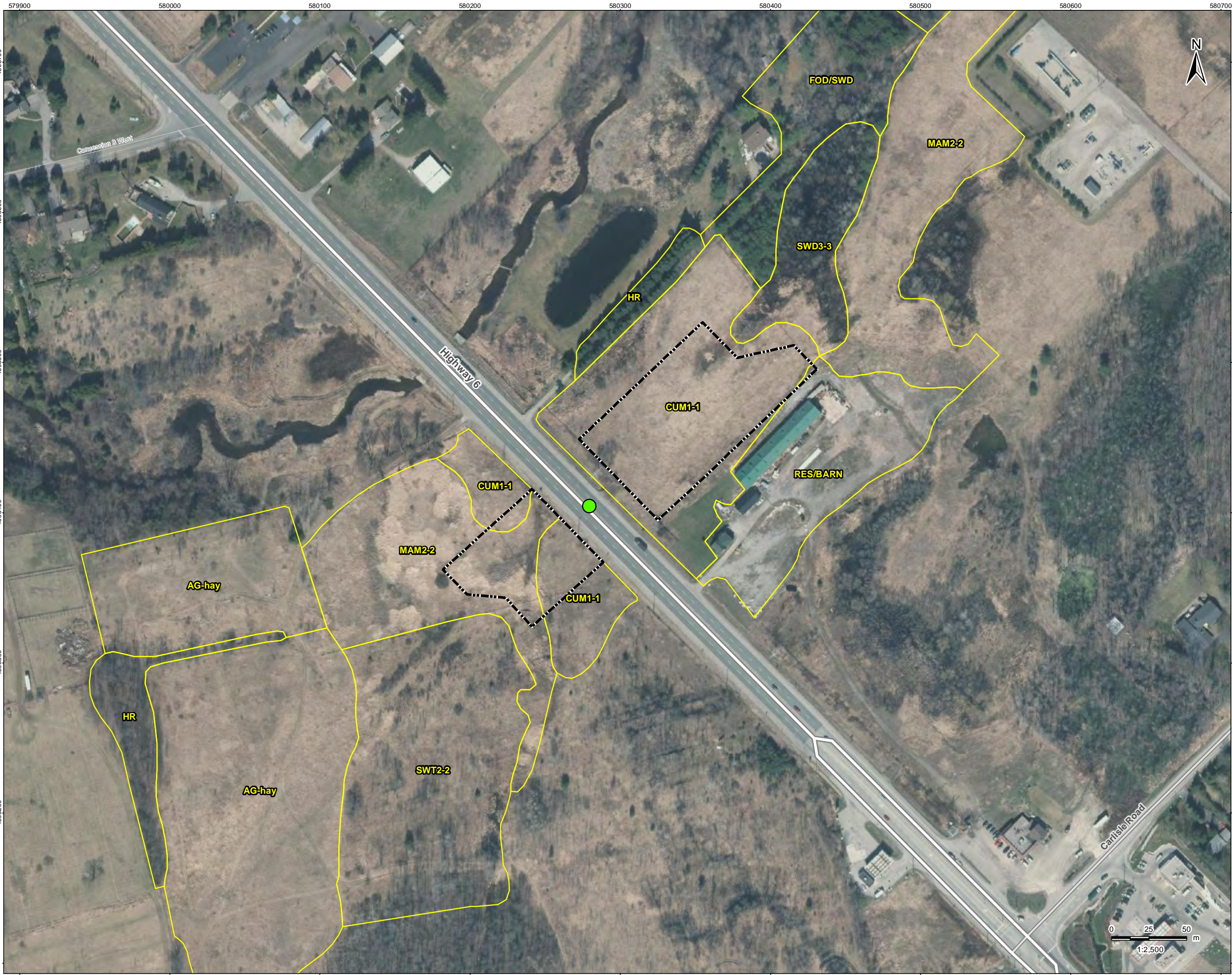
Figure No.

1

**DRAFT**

Title

**ELC Vegetation Communities**







## Environmental Checklist

The Project Originator is responsible for reviewing and completing the following checklist to determine if the project should be forwarded to EH&S Planning for their review. **When completing this form, please ensure that a Description of Feature is given and that the Proposed Mitigation is identified for those features marked YES in the Impacted column.**

**Project Name:** Dawn Parkway NPS 48 Replacement Project  
**Project Number:**

**Date:** 2013-08-06  
**Project Originator:** Major Projects

**Project Description:** Union Gas Limited is proposing to replace approximately 72 metres of its existing NPS 48 pipeline underneath Highway #6 within the City of Hamilton. The pipeline is being replaced due to integrity issues identified through Union's integrity management program. The existing section of NPS 48 pipeline underneath the highway will be abandoned in place. The new pipeline will be installed by the directional bore method.

Feature and Description	Impacted Yes/No	Proposed Mitigation
<b>Water Course Crossings</b> Description: Crossings see attached drawings for locations	No	See sections 3.44 and 3.45 C&M Manual for mitigation. Adhere to SCR and permit requirements
<b>Social Impacts</b> Description: Construction in road allowance Noise, Dust, Traffic, Residential Access	Yes	See sections 18.7 and 18.8 of the C&M manual for mitigation  Noise - to be controlled to the greatest extent possible so as to minimize the disruption of nearby residents (i.e. ensure all equipment have proper mufflers). Dust - control dust as required. Traffic - develop highway traffic control procedures
<b>Land use Designations</b> Description:	No	
<b>Agricultural Resources</b> Description: It will be necessary to access the work site on agricultural lands .	Yes	See sections 3.46 and 3.25 C&M Manual for mitigation  - Soybean Cyst Nematode testing needed - Soil compaction monitoring
<b>Vegetation and Wildlife Habitat</b> Description: Species at Risk Possible Tree Removal	Yes	Consult with MNR concerning species at risk.  Work will be undertaken after avian nesting period (after July 31) .
<b>Water Wells and Hydrology</b> Description: Possible trench dewatering	Yes	If necessary to dewater the trench Permit to Take Water will be acquired from the Ministry of the Environment.

Possible water well monitoring		Unions standard water well monitoring program will be implemented for any nearby residences.
<b>Heritage Resources</b> Description: Archaeological Resources (artifacts)	Yes	Archaeological survey will be undertaken prior to construction.
<b>Geological Resources and Minerals</b> Description:	No	
<b>Additional Concerns</b> Description:	No	

**TOTAL ESTIMATED ENVIRONMENTAL COSTS**

**DAWN PARKWAY NPS 48 REPLACEMENT PROJECT (HWY #6)**

**Pre-Construction**

Environmental Review	\$	20,000
Archaeology		10,000
Species at Risk Surveys		10,000
Hydrogeological Study/Water Well Monitoring		5,000
Environmental Permits		<u>5,000</u>

**Total Pre-Construction** \$ **50,000**

**Construction**

Environmental Inspection	\$	5,000
Soil Monitoring		<u>5,000</u>

**Total Construction** \$ **10,000**

**Post Construction**

Site Restoration	\$	<u>5,000</u>
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**Total Post Construction** \$ **5,000**

**Total Estimated Environmental Costs** \$ **65,000**



**Patrick, Mary Jane**

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**From:** Bonin, John  
**Sent:** July-31-13 2:22 PM  
**To:** Chief Bill Montour  
**Subject:** Union Gas – 48 inch Diameter Pipeline Replacement Project at Highway 6 near Carlisle, Ontario

Chief Montour very shortly, Union Gas will be filing an application with the Ontario Energy Board to replace 50m of 48" pipeline that crosses Hwy 6 in Carlisle. We need to file an application as the existing pipeline will be abandoned and remain in place and we will be installing a new pipeline that requires highway crossing permits. Details of the project and a map are outline below.

I have sent a copy of this email to Joanne Thomas for the CAP committee. If you have any comments or questions, please call or email me to set up a meeting.

Thanks!

*John Bonin*

Manager First Nations and Métis Affairs  
Union Gas  
Phone: 519-539-8509 ext 5021063  
Email: [jbodin@uniongas.com](mailto:jbodin@uniongas.com)

## **Background**

Union Gas owns and operates a major high pressure natural gas transmission system located between the Dawn Compressor Facilities, in Dawn Township to the Parkway Compressor facilities located on Ninth Line in Mississauga Ontario. This system, known as the Dawn Parkway transmission system consists of a number of parallel pipelines of various diameters.

As part of Union's ongoing integrity management program, these pipeline systems are subject to an internal electronic inspection program in order to comply with the company's integrity management program, as well as complying with regulatory and code requirements.

The integrity management program is intended to identify any pipeline defects that need to be addressed based on the nature and severity of the feature. Once identified, the feature can be prioritized for follow up action based on a set of remediation action items and timelines.

An inspection program completed in the fall of 2012 on the 48" diameter pipeline which crosses Hwy 6, in the Town of Flamborough has revealed the urgent need for this section of pipeline be replaced in 2013.

## **Existing Pipeline**

The existing 48" diameter pipeline was installed in 1990 as part of a major expansion program to increase the capacity of the existing Dawn Parkway Transmission system. This pipeline system provides natural gas supply to residential and industrial markets in the Toronto area and eastern Ontario. The installation of the crossing at Hwy 6 proved to be very challenging at the time due to subsurface rock and stone soil conditions and as a result had to be installed using a tunneling method. Installation of pipelines by either auger boring or tunneling in rocky/stone conditions can result in undetected coating damage.

The pipeline inspection results show several corrosion features that have developed since the crossing was originally installed. These features are classified as being severe and if left unattended could jeopardize the integrity of the pipeline at this location.

Based on this information Union is proposing to replace this crossing in the fall of 2013 in order to ensure that the future system integrity, security of supply and safety is not compromised.

**Scope**

Approximately 50 m of 48" diameter pipeline which crosses Hwy 6 ROW requires replacement in 2013.

Geotechnical boreholes have revealed that there is a layer of silt and sand underlying the rock and stone soil in which the existing pipeline is located.

A standard augered crossing (slip-bore) can be completed with new pipe at an elevation such that only silt and sand will be encountered, thus ensuring the pipe and coating will remain undamaged. The existing pipe will be filled with grout (very low strength concrete) and left in place.

Work areas will be needed on each side of Highway 6, but the road surface will remain intact and traffic will not be disrupted. The work will take about 6 weeks in total in September and October. Due to the high water table in the area, dewatering the soil through the use of well points will be necessary.

**Environment**

An environmental screening report is being completed for the areas to be disturbed by construction. Since work will occur mostly on existing pipeline easements, tree clearing will not be needed and archaeology investigations took place in 1990. Any newly disturbed areas will require investigation and First Nations observers will be invited to monitor field activities.

Permits will be obtained from agencies such as Conservation Halton where necessary.



**Patrick, Mary Jane**

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**From:** Bonin, John  
**Sent:** July-31-13 2:15 PM  
**To:** Joanne Thomas  
**Subject:** Union Gas – 48 inch Diameter Pipeline Replacement Project at Highway 6 near Carlisle, Ontario

Joanne, very shortly, Union Gas will be filing an application with the Ontario Energy Board to replace 50m of 48" pipeline that crosses Hwy 6 in Carlisle. We need to file an application as the existing pipeline will be abandoned and remain in place and we will be installing a new pipeline that requires highway crossing permits. Details of the project and a map are outline below.

If you or the CAP committee have any questions or comments, please call or email me to set up a meeting.

Thanks!

*John Bonin*

Manager First Nations and Métis Affairs

Union Gas

Phone: 519-539-8509 ext 5021063

Email: [jbonin@uniongas.com](mailto:jbonin@uniongas.com)

## **Background**

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## **Existing Pipeline**

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The pipeline inspection results show several corrosion features that have developed since the crossing was originally installed. These features are classified as being severe and if left unattended could jeopardize the integrity of the pipeline at this location.

Based on this information Union is proposing to replace this crossing in the fall of 2013 in order to ensure that the future system integrity, security of supply and safety is not compromised.

**Scope**

Approximately 50 m of 48" diameter pipeline which crosses Hwy 6 ROW requires replacement in 2013. Geotechnical boreholes have revealed that there is a layer of silt and sand underlying the rock and stone soil in which the existing pipeline is located.

A standard augered crossing (slip-bore) can be completed with new pipe at an elevation such that only silt and sand will be encountered, thus ensuring the pipe and coating will remain undamaged. The existing pipe will be filled with grout (very low strength concrete) and left in place.

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**Environment**

An environmental screening report is being completed for the areas to be disturbed by construction. Since work will occur mostly on existing pipeline easements, tree clearing will not be needed and archaeology investigations took place in 1990. Any newly disturbed areas will require investigation and First Nations observers will be invited to monitor field activities.

Permits will be obtained from agencies such as Conservation Halton where necessary.





**Patrick, Mary Jane**

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**From:** Bonin, John  
**Sent:** July-31-13 2:17 PM  
**To:** Hazel HDI HILL  
**Subject:** Union Gas – 48 inch Diameter Pipeline Replacement Project at Highway 6 near Carlisle, Ontario

Hazel, very shortly, Union Gas will be filing an application with the Ontario Energy Board to replace 50m of 48" pipeline that crosses Hwy 6 in Carlisle. We need to file an application as the existing pipeline will be abandoned and remain in place and we will be installing a new pipeline that requires highway crossing permits. Details of the project and a map are outline below.

If you or the HDI have any questions or comments, please call or email me to set up a meeting.

Thanks!

*John Bonin*

Manager First Nations and Métis Affairs  
Union Gas  
Phone: 519-539-8509 ext 5021063  
Email: [jbonin@uniongas.com](mailto:jbonin@uniongas.com)

## **Background**

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## **Existing Pipeline**

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The pipeline inspection results show several corrosion features that have developed since the crossing was originally installed. These features are classified as being severe and if left unattended could jeopardize the integrity of the pipeline at this location.

Based on this information Union is proposing to replace this crossing in the fall of 2013 in order to ensure that the future system integrity, security of supply and safety is not compromised.

**Scope**

Approximately 50 m of 48" diameter pipeline which crosses Hwy 6 ROW requires replacement in 2013. Geotechnical boreholes have revealed that there is a layer of silt and sand underlying the rock and stone soil in which the existing pipeline is located.

A standard augered crossing (slip-bore) can be completed with new pipe at an elevation such that only silt and sand will be encountered, thus ensuring the pipe and coating will remain undamaged. The existing pipe will be filled with grout (very low strength concrete) and left in place.

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**Environment**

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**Patrick, Mary Jane**

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**From:** Bonin, John  
**Sent:** July-31-13 2:23 PM  
**To:** Chief Bryan LaForme  
**Subject:** Union Gas – 48 inch Diameter Pipeline Replacement Project at Highway 6 near Carlisle, Ontario

Chief LaForme, very shortly, Union Gas will be filing an application with the Ontario Energy Board to replace 50m of 48" pipeline that crosses Hwy 6 in Carlisle. We need to file an application as the existing pipeline will be abandoned and remain in place and we will be installing a new pipeline that requires highway crossing permits. Details of the project and a map are outline below.

I have sent a copy of this to Carolyn King, If you have any questions or comments, please call or email me to set up a meeting.

Thanks!

*John Bonin*

Manager First Nations and Métis Affairs  
Union Gas  
Phone: 519-539-8509 ext 5021063  
Email: [jbbonin@uniongas.com](mailto:jbbonin@uniongas.com)

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**Patrick, Mary Jane**

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**From:** Bonin, John  
**Sent:** July-31-13 2:18 PM  
**To:** Carolyn King  
**Subject:** Union Gas – 48 inch Diameter Pipeline Replacement Project at Highway 6 near Carlisle, Ontario

Carolyn, very shortly, Union Gas will be filing an application with the Ontario Energy Board to replace 50m of 48" pipeline that crosses Hwy 6 in Carlisle. We need to file an application as the existing pipeline will be abandoned and remain in place and we will be installing a new pipeline that requires highway crossing permits. Details of the project and a map are outline below.

If you or the Consultation committee have any questions or comments, please call or email me to set up a meeting.

Thanks!

*John Bonin*

Manager First Nations and Métis Affairs  
Union Gas  
Phone: 519-539-8509 ext 5021063  
Email: [jbonin@uniongas.com](mailto:jbonin@uniongas.com)

## **Background**

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An inspection program completed in the fall of 2012 on the 48" diameter pipeline which crosses Hwy 6, in the Town of Flamborough has revealed the urgent need for this section of pipeline be replaced in 2013.

## **Existing Pipeline**

The existing 48" diameter pipeline was installed in 1990 as part of a major expansion program to increase the capacity of the existing Dawn Parkway Transmission system. This pipeline system provides natural gas supply to residential and industrial markets in the Toronto area and eastern Ontario. The installation of the crossing at Hwy 6 proved to be very challenging at the time due to subsurface rock and stone soil conditions and as a result had to be installed using a tunneling method. Installation of pipelines by either auger boring or tunneling in rocky/stone conditions can result in undetected coating damage.

The pipeline inspection results show several corrosion features that have developed since the crossing was originally installed. These features are classified as being severe and if left unattended could jeopardize the integrity of the pipeline at this location.

Based on this information Union is proposing to replace this crossing in the fall of 2013 in order to ensure that the future system integrity, security of supply and safety is not compromised.



**Scope**

Approximately 50 m of 48" diameter pipeline which crosses Hwy 6 ROW requires replacement in 2013. Geotechnical boreholes have revealed that there is a layer of silt and sand underlying the rock and stone soil in which the existing pipeline is located.

A standard augered crossing (slip-bore) can be completed with new pipe at an elevation such that only silt and sand will be encountered, thus ensuring the pipe and coating will remain undamaged. The existing pipe will be filled with grout (very low strength concrete) and left in place.

Work areas will be needed on each side of Highway 6, but the road surface will remain intact and traffic will not be disrupted. The work will take about 6 weeks in total in September and October. Due to the high water table in the area, dewatering the soil through the use of well points will be necessary.

**Environment**

An environmental screening report is being completed for the areas to be disturbed by construction. Since work will occur mostly on existing pipeline easements, tree clearing will not be needed and archaeology investigations took place in 1990. Any newly disturbed areas will require investigation and First Nations observers will be invited to monitor field activities.

Permits will be obtained from agencies such as Conservation Halton where necessary.



**Patrick, Mary Jane**

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**From:** Bonin, John  
**Sent:** July-31-13 2:25 PM  
**To:** Mark Bowler  
**Subject:** Union Gas – 48 inch Diameter Pipeline Replacement Project at Highway 6 near Carlisle, Ontario

Mark, very shortly, Union Gas will be filing an application with the Ontario Energy Board to replace 50m of 48" pipeline that crosses Hwy 6 in Carlisle. We need to file an application as the existing pipeline will be abandoned and remain in place and we will be installing a new pipeline that requires highway crossing permits. Details of the project and a map are outline below.

If you have any questions or comments, please call or email me to set up a meeting.

Thanks!

*John Bonin*

Manager First Nations and Métis Affairs

Union Gas

Phone: 519-539-8509 ext 5021063

Email: [jbodin@uniongas.com](mailto:jbodin@uniongas.com)

## **Background**

Union Gas owns and operates a major high pressure natural gas transmission system located between the Dawn Compressor Facilities, in Dawn Township to the Parkway Compressor facilities located on Ninth Line in Mississauga Ontario. This system, known as the Dawn Parkway transmission system consists of a number of parallel pipelines of various diameters.

As part of Union's ongoing integrity management program, these pipeline systems are subject to an internal electronic inspection program in order to comply with the company's integrity management program, as well as complying with regulatory and code requirements.

The integrity management program is intended to identify any pipeline defects that need to be addressed based on the nature and severity of the feature. Once identified, the feature can be prioritized for follow up action based on a set of remediation action items and timelines.

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**Patrick, Mary Jane**

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**From:** Bonin, John  
**Sent:** July-31-13 2:26 PM  
**To:** James Wagar  
**Subject:** Union Gas – 48 inch Diameter Pipeline Replacement Project at Highway 6 near Carlisle, Ontario

James, very shortly, Union Gas will be filing an application with the Ontario Energy Board to replace 50m of 48" pipeline that crosses Hwy 6 in Carlisle. We need to file an application as the existing pipeline will be abandoned and remain in place and we will be installing a new pipeline that requires highway crossing permits. Details of the project and a map are outline below.

If you have any questions or comments, please call or email me to set up a meeting.

Thanks!

*John Bonin*

Manager First Nations and Métis Affairs

Union Gas

Phone: 519-539-8509 ext 5021063

Email: [jbodin@uniongas.com](mailto:jbodin@uniongas.com)

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