

March 31, 2017

Ms. Kirsten Walli
Ontario Energy Board
2300 Yonge Street, 27th Floor
Toronto, ON
M4P 1E4

Dear Ms. Walli:

**Re: EB-2015-0179 – Union Gas Limited – Community Expansion Proposal –
Updated Application and Evidence**

Please find attached Union's updated application and evidence (the "Update") in the above case. The Update will be filed in RESS and copies will be sent to the Board.

The Update reflects the Board's findings issued as part of its Generic Community Expansion (EB-2016-0004) Decision with Reasons (dated November 17, 2016). The updated application reflects removal of approvals no longer required by Union including exemptions from the Board's E.B.O. 188 and approval of capital pass through treatment and related deferral accounts. Union's Community Expansion Proposal includes updated project details for four specific expansion projects. These projects are to serve the communities of Chippewas of Kettle and Stony Point First Nation and Lambton Shores; Milverton, Rostock and Wartburg; Prince Township; and Delaware Nation of Moraviantown First Nation.

As part of the Update, Union is seeking Section 36 approval of a proposed rate surcharge structure specific to each Expansion Project ("System Expansion Surcharge"). As was stated in Union's original application, the expansion projects above require Section 90 Leave to Construct ("LTC") approval with the exception of Delaware Nation of Moraviantown First Nation. Although LTC approval is not required, Union has included detailed information for this project.

Union is filing the Update pursuant to the direction issued as per the Board's EB-2015-0179 Procedural Order No. 5 (dated March 21, 2017). Specifically, the Board cited a deadline of March 28, 2017 for any party other than Union to express an interest in serving the four expansion projects listed above. No such interest was raised.

The Board in Procedural Order No. 5 also identified three preliminary “*threshold issues*” from the EB-2016-0137/38/39 Procedural Order No. 2¹ that will apply to Union’s EB-2015-0179 application “*even if there is no expression of interest from other parties*”. Union will make submissions on these preliminary issues within the EB-2016-0137/38/39 Proceeding and will comply with any findings of the Board in that proceeding.

Union filed its original EB-2015-0179 Community Expansion application and evidence with the Board on July 23, 2015. As part of this filing, Union completed a public Notice process. Union also completed an interrogatory phase as well as a technical conference. The Board subsequently placed this application on hold while it initiated EB-2016-0004. Union was again required to complete a separate public Notice process for the generic proceeding.

To meet a proposed in-service date of December 2017, Union is requesting the Board implement an expedited regulatory review process. Given Union’s updates are consistent with the Board’s community expansion decision; advanced state of planning to serve the four project areas; no other party has expressed interest in serving these areas with natural gas; and, the projects identified have been in the public domain since July 2015, additional time to complete a further Notice process is unwarranted and would detrimentally affect Union’s ability to meet the in-service date.

Union respectfully requests the Board adopt the approved intervenor list from EB-2016-0004. This list is not only all-encompassing but it also aligns with the four Expansion Projects subject to the Update.

If you have any questions, please contact me at 519-436-5473.

Yours Truly,

[Original signed by]

Karen Hockin
Manager, Regulatory Initiatives

Cc: Charles Keizer, Torys
Mark Kitchen, Union
All Intervenors (EB-2016-0004)

¹ EB-2016-0137/38/39 EPCOR Southern Bruce Gas Inc. (“EPCOR”) franchise and certificate of public convenience and necessity applications, Procedural Order No. 2 dated March 3, 2017

ONTARIO ENERGY BOARD

IN THE MATTER OF the Ontario Energy Board Act, 1998, S.O. 1998, c.15, Schedule B, and in particular S. 36 thereof;

AND IN THE MATTER OF the Ontario Energy Board Act, 1998, c.15, Schedule B, and in particular, S. 90 thereof;

AND IN THE MATTER OF an Application by Union Gas Limited for an Order or Orders for approval of Union's Distribution System Expansion Project proposals;

AND IN THE MATTER OF an Application by Union Gas Limited for an Order or Orders granting leave to construct natural gas pipelines and ancillary facilities required to serve the communities of Milverton, Prince Township and, the Chippewas of Kettle and Stony Point First Nation and Lambton Shores.

APPLICATION

1. Union Gas Limited ("Union") is a business corporation incorporated under the laws of the province of Ontario, with its head office in the Municipality of Chatham-Kent.
2. Union conducts both an integrated natural gas utility business that combines the operations of distributing, transmitting and storing natural gas, and a non-utility storage business.
3. Union's Community Expansion Project proposals are in direct response to the Ontario Energy Board's ("the Board") initiative to address the Ontario government's desire to expand natural gas distribution systems to communities that currently do not have access to natural gas.

4. Union hereby applies to the Board for:
 - a. An order approving a system expansion surcharge (“SES”) rate for each of the four Community Expansion Projects.
 - b. An order granting leave to construct approval for the natural gas pipelines and ancillary facilities required to serve the communities of Milverton, Rostock and Wartburg (Municipality of Perth East); Prince Township; and, the Chippewas of Kettle and Stony Point First Nation and Lambton Shores.
5. Union further applies to the Board for all necessary orders and directions concerning pre-hearing and hearing procedures for the determination of this application.
6. This application is supported by written evidence which may be amended from time to time as circumstances may require.
7. The persons affected by this application are the customers resident or located in the municipalities, police villages and First Nations reserves served by Union, together with those to whom Union sells gas, or on whose behalf Union distributes, transmits or stores gas. It is impractical to set out in this application the names and addresses of such persons because they are too numerous.

8. The address of service for Union is:

Union Gas Limited
P.O. Box 2001
50 Keil Drive North
Chatham, Ontario
N7M 5M1

Attention:	Karen Hockin Manager, Regulatory Initiatives
Telephone:	(519) 436-5473
Fax:	(519) 436-4641

- and -

Torys

Suite 3000, Maritime Life Tower
P.O. Box 270
Toronto Dominion Centre
Toronto, Ontario
M5K 1N2

Attention: Charles Keizer
Telephone: (416) 865-7512
Fax: (416) 865-7380

DATED March 31, 2017.

UNION GAS LIMITED

[Original signed by]

Karen Hockin
Manager, Regulatory Initiatives

EXPANSION OF NATURAL GAS DISTRIBUTION – UNION GAS

Pursuant to Union Gas Limited’s (“Union”) response to the Ontario Energy Board’s (the “Board”) Procedural Order No.4¹, the purpose of this Addendum is to amend Union’s proposal in response to the Board’s findings in its EB-2016-0004 Generic Community Expansion Decision.²

The intent of the Addendum is to amend Union’s application to reflect the impact of the EB-2016-0004 Decision on Union’s original community expansion proposal filed at Exhibit A, Tab 1 (Updated), in EB-2015-0179. Union has also updated the original evidence filed in Tab 2 to reflect scope or cost changes to the proposed community expansion projects.

The Addendum is structured as follows:

1. Introduction
2. Specific Approvals Required
3. Community Expansion Project Proposal
4. Tracking and Reporting
5. Government Funding
6. Project Proposal Summary

¹ Union Gas Limited letter to the OEB dated December 22, 2016

² EB-2016-0004 Decision with Reasons, dated November 17, 2016

1 **1. Introduction**

2 Union has had an opportunity to review and assess the EB-2016-0004 Decision. Although the
3 Board continues to support the expansion of natural gas service to remote areas, the EB-2016-
4 0004 Decision varies from Union's EB-2015-0179 proposal. Specifically, a key principle of
5 Union's EB-2015-0179 proposal was the premise that existing Union customers would cross-
6 subsidize community expansion projects. In an attempt to create a more level playing field and
7 encourage competition, the Board ruled that rather than impact existing customers, "*rates will be*
8 *stand-alone and designed to cover the costs of the proposed expansion*"³.

9
10 Without the ability to cross-subsidize specific community expansion projects and absent other
11 sources of direct funding, the number of economically feasible communities identified in
12 Union's EB-2015-0179 filing⁴ is significantly reduced. For this reason, Union's updated
13 community expansion proposal focuses only on four expansion projects to serve the following
14 communities: Kettle and Stony Point First Nation and Lambton Shores; Milverton, Rostock and
15 Wartburg ("Milverton"); Prince Township; and Delaware Nation of Moraviantown First Nation.

16
17 For ease of reference, in Table 1 below, Union has summarized the key components of its initial
18 community expansion proposal compared with its updated proposal set out in this Addendum.

19

³ EB-2016-0004 Decision, p.20

⁴ Exhibit A, Tab 1, Appendix D.

Table 1: Comparison of Union's Initial and Updated Proposals

Proposal Component	Initial Proposal (Tab 1 Updated)	Updated Proposal (Tab 1 Addendum)
General		
Project Eligibility	Minimum 50 potential customers	Not Required
Gross Capital	\$135 million Program for up to 29 Projects	\$11 million for 4 specific Projects
Capital Pass-Through	Yes	No
Capital Pass-Through Deferral Account	Yes	No
Community Expansion Contribution Deferral	Yes	No
Project Minimum P.I.	0.4	1.0
Rolling Project Portfolio P.I Exemption	Yes	No
Investment Portfolio PI Exemption	Yes	No
Maximum Pre-existing Ratepayer Long Term	\$2.00/month	\$0
Customer Forecast risk	All ratepayers	Utility
Surcharge		
Type	Volumetric "TES"	Volumetric "SES"
Applicability	General Service	General Service
Value	\$0.23/m ³	\$0.23/m ³
Term	Varies by Project, Max 10 years	Varies by Project
Municipal/First Nation Contributions		
Type	Mandatory	Voluntary
Basis	ITE - Incremental value of property taxes	Voluntary

1 **2. Specific Approvals Required**

2 Union is seeking approval of the following items:

- 3 • Section 36 approval for a System Expansion Surcharge⁵ (“SES”) rate for each of the four
4 Community Expansion Projects; and,
5 • Section 90 Leave to Construct (“LTC”) approvals for facilities required to serve the Kettle
6 and Stony Point First Nation and Lambton Shores, Milverton, and Prince Township Project
7 areas.

8
9 Union holds a certificate of Public Convenience and Necessity for each of the Project areas,
10 existing Franchise Agreements for Lambton Shores, Milverton, and Prince Township, and is in
11 the process of obtaining necessary permits under the *Indian Act*⁶ for Kettle and Stony Point First
12 Nation and Delaware Nation of Moraviantown First Nation.

13
14 Union is prepared to initiate construction for the four proposed Projects in mid-summer 2017 in
15 order to have the Projects in service before the end of 2017. To meet this timeline, Union
16 respectfully requests the Board issue a decision by June 30, 2017.

17
18
19

⁵ The purpose of the SES is consistent with the Temporary Expansion Surcharge (“TES”) from Union’s initial proposal; however it has been renamed to reflect it now being proposed for significantly longer periods of time than initially proposed in order to make the Projects economically feasible.

⁶ Indian Act Section 28(2) Permit.

1 **3. Community Expansion Project Proposal**

2 *Introduction*

3 Union's Community Expansion proposal includes four Projects to service the following
4 communities:

- 5 • Kettle and Stony Point First Nation and Lambton Shores (Tab 2, Section A)
- 6 • Milverton, Rostock and Wartburg (Tab 2, Section B)⁷
- 7 • Delaware Nation of Moraviantown First Nation (Tab 2, Section C)
- 8 • Prince Township (Tab 2, Section D)

9
10 Union's updated proposal to service the above noted communities consists of the following
11 components:

- 12 • SES to enable the new general service customers to financially contribute to the economic
13 feasibility of each project in excess of the amount derived from existing rates. Details are
14 provided in Section 3.1 of this Addendum.
- 15 • A voluntary financial contribution from the applicable municipality or First Nation for each
16 Project where the municipality or First Nation has agreed to make such contribution. Details
17 are provided in Section 3.2 of this Addendum.

18

⁷ Scope of the Milverton Project has increased in comparison to Union's initial proposal to include the hamlets of Rostock and Wartburg.

1 The EB-2016-0004 Decision indicates that revenue requirement recovery should be considered
2 in light of individual projects, and that the impacts to existing customers whose interests are
3 protected by the Incentive Regulation Mechanism (“IRM”) settlement agreement would be a
4 factor to be considered.⁸ Given the criteria for consideration and that the four proposed Projects
5 require capital investment that is below Union’s IRM agreement capital pass through criteria,
6 Union is no longer proposing capital pass through treatment. Instead, Union intends to treat the
7 invested capital in the same manner as any other capital expenditures made during the IRM
8 period.

10 **3.1 System Expansion Surcharge**

11 *Description*

12 Union proposes the introduction of a single, volumetric-based SES. Similar to the Temporary
13 Expansion Surcharge (“TES”) in Union’s initial proposal, this mechanism provides a means for
14 customers to be served by the proposed Projects to contribute a portion of their annual savings
15 toward natural gas system expansion feasibility. When customers served by the four Projects
16 convert to natural gas, they will pay the SES for a defined period of time not to exceed 40 years
17 as a contribution toward recovery of the cost of the Project. The proposed SES is consistent with
18 the Board’s view that “*An incumbent utility with existing rates may still propose to collect a*

⁸ EB-2016-0004 Decision with Reasons, p. 23.

1 *surcharge over and above those rates to make up for the shortfall in revenues to cover the cost of*
2 *expansion”*⁹.

3
4 The SES will appear to the expansion area customers as an extra line item on each monthly bill,
5 labelled “*System Expansion Surcharge*”. For clarity, this line item will be in addition to other
6 current gas bill line items, including for example charges for commodity, transportation, storage,
7 delivery, and the fixed monthly charge, which are identified in current approved rate schedules.
8 Potential customers will be informed of the details of this charge as a Community Expansion
9 Project is developed, as well as at the time their application to Union for service is made. For
10 customers who wish to equalize their monthly payments, Union’s equal billing plan will be
11 extended to include the SES.

12
13 *Applicability*

14 The SES will be applied to all general service customers (Rates M1, M2, 01, 10) attaching to
15 mains installed as part of the four proposed Projects until the SES term for the project expires. In
16 the event that a customer who is paying the SES sells their home or business, the SES will
17 continue to apply for its original term to the new owner of that home or business.

18

⁹ EB-2016-0004 Decision with Reasons, p. 21.

1 There are no potential customers in the areas proposed to be serviced that meet eligibility criteria
2 for Union's contract rate classes. However, to the extent that having natural gas available attracts
3 new customers eligible for contract rate classes in the areas serviced by the four proposed
4 Projects; Union's proposal does not extend the SES to these customers (Rates M4, M5, M7, T1,
5 T2, 20, 100). Rather, any future contract customers in the areas serviced by the four Projects will
6 be required to commit to contract terms that will ensure their attachment can meet a minimum
7 P.I. of 1.0.

8
9 To the extent that further extensions to the pipeline systems as proposed in this application are
10 made, Union proposes that the SES applicable to the proposed Projects would be applied to
11 customers attaching to those future extensions.

12
13 *Rate*

14 Union proposes that the SES be set at \$0.23/m³. Union tested the surcharge at several different
15 levels and terms in telephone surveys conducted with potential customers in the Milverton,
16 Lambton Shores and Prince Township Project areas in February, 2017. Based on the results of
17 those surveys, Union submits that the SES of \$0.23/m³ remains appropriate for community
18 expansions Projects.

1 The SES will be fixed at \$0.23/m³ throughout the duration of the SES term. Union proposes that
2 this approach meets the Board requirement for “*a minimum rate stability period of 10 years (for*
3 *example)*¹⁰”. While the SES for applicable customers will be added to the existing Rate M1, M2,
4 01 or 10 delivery charges on each bill, and the existing rates may change over time, a fixed SES
5 rate provides a large measure of stability for periods of longer than 10 years.

6
7 *Term*

8 The SES term will begin when the Project goes into service, and expire at the end of the calendar
9 year required for the specific Project to meet a P.I. of 1.0. The SES term will vary from Project
10 to Project based on the period of time required to reach the minimum P.I. of 1.0 for each Project.
11 Every general service customer who connects to the system will be subject to the SES from the
12 date of their connection until the end of the term defined by the Project. At the end of the defined
13 term, the SES will be terminated for every customer attached to the Project, regardless of when
14 the customer connected to the Project.

15
16 To the extent any further extensions to the pipeline systems proposed in this application are
17 made, at a minimum Union proposes that the approved SES term for the applicable Project be
18 applied to customers attaching to those future extensions. However, the term for future extension

¹⁰ EB-2016-0004 Decision with Reasons, p. 20.

customers may be extended beyond the initial term if necessary for the future extension to meet the minimum P.I. of 1.0.

Requested Board Approvals

Union is proposing that for each of the communities in the four Project areas, the Board approve the SES and term as shown in Table 2.

Table 2: Rate Approvals

Project	SES Rate	SES Term Expiry¹¹
Kettle and Stony Point First Nation and Lambton Shores	\$0.23/m ³	December 31, 2029
Milverton, Rostock and Wartburg	\$0.23/m ³	December 31, 2032
Delaware Nation of Moraviantown First Nation	\$0.23/m ³	December 31, 2057
Prince Township	\$0.23/m ³	December 31, 2039

Union proposes that the details above be included in the Rate M1, M2, 01 and 10 rate schedules with a description indicating that these charges apply to new services within the applicable communities and are in addition to the other charges within the rate schedules.

¹¹ SES Term Expiry dates are contingent on Projects being constructed in 2017.

1 **3.2 Voluntary Municipal/First Nation Contributions**

2 In its initial proposal, Union proposed that municipalities or First Nations be required to make a
3 financial contribution to the Projects through a mechanism called an Incremental Tax Equivalent
4 (“ITE”) that was based on the annual incremental taxes they would receive from Union after the
5 proposed systems were in service. The EB-2016-0004 Decision indicates that “*the ITE*
6 *contribution should be a voluntary and not a mandatory requirement*¹²”. Accordingly, Union has
7 included a contribution from the municipality or First Nation in the economics for the four
8 proposed Projects only if the municipality or First Nation is willing to make a contribution. For
9 purposes of this evidence the ITE is now termed municipal/First Nation contribution.

10
11 To the extent that a municipality or First Nation makes an up-front voluntary financial
12 contribution to a Project, Union will treat the contribution as an Aid-to-Construction, which will
13 reduce the net capital cost of the project in year 1. If a municipality or First Nation agrees to
14 provide ongoing financial support to a Project in the form of an annual payment for an agreed
15 upon term, Union will treat the financial support as revenue.

16

¹² EB-2016-0004 Decision with Reasons, p.22.

1 4. **Tracking and Reporting**

2 Union will track the four proposed Projects on a project-by-project basis. As part of Union's
3 annual stakeholder meeting, Union will provide a report, by Project, which outlines the
4 following:

- 5 • Budgeted and actual capital costs, both at a gross level, and net of any Aid-to-Construction, as
6 at the date the Project is in-service, and
- 7 • Cumulative forecasted customer and actual customer attachment rates for the duration of the
8 forecast (10 years).

9 In its initial proposal Union proposed more extensive reporting. However, given that initial
10 proposals for a capital pass-through and deferral accounts have been withdrawn as a result of the
11 EB-2016-0004 Decision, more extensive reporting is no longer required.

12
13 5. **Government Funding**

14 On January 30, 2017, the Province of Ontario announced that the previously announced Grant
15 and Loan Program (\$30 million in grants and \$200 million in interest free municipal loans) was
16 to be replaced with a \$100 million grant program¹³. Although details on the eligibility criteria
17 and the application process are not yet available, they are expected to be available in the spring
18 of 2017.

19

¹³ <https://news.ontario.ca/moi/en/2017/01/expanding-natural-gas-to-more-communities-across-ontario.html>

Consistent with its initial proposal, Union would apply any up-front grants received as an Aid-to-Construction contribution to the applicable Project.

One Project, Delaware Nation of Moraviantown First Nation, is contingent on receipt of Provincial grant funding or another means of direct Aid-to-Construction to meet a minimum P.I. of 1.0, while the other three Projects are proposed at a P.I. of at least 1.0 without Aid-to-Construction.

Provincial grant criteria are not yet available. When available, to the extent that the Projects are eligible and grant funding is provided by the province subsequent to Union filing its amended EB-2015-0179 application but prior to the Project in-service dates, the funds provided will be treated as an Aid-to-Construction. This would result in an improvement in the P.I. of each Project. In this case, Union will shorten the required SES term for each Project as applicable in order to ensure the P.I. of each Project only meets the required threshold of 1.0, and proposes that it would notify the Board accordingly without delaying the planned start of construction.

6. Project Proposal Summary

Subject to the Board's approval of Union's Community Expansion SES proposal, Union is seeking specific LTC approval to introduce natural gas service to the following communities:

- Kettle and Stony Point First Nation and Lambton Shores

1 • Milverton, Rostock and Wartburg

2 • Prince Township

3
4 Union is also planning to extend service to the Delaware Nation of Moraviantown First Nation

5 community subject to receipt of the necessary Aid-to-Construction, and approval of its SES

6 proposal as updated with this Addendum. Although this Project does not require LTC approval,

7 Union has included detailed information for this Project.

8
9 Union has the necessary Franchise and Certificate rights in place for all of these projects. Union

10 is in the process of obtaining the necessary permits under the *Indian Act* related to Kettle and

11 Stony Point First Nation and the Delaware Nation of Moraviantown First Nation. Union has the

12 support of the Kettle and Stony Point and Moraviantown First Nations leadership.

13

A summary of each Project is shown in Table 3 below.

Table 3: Proposed Community Expansion Projects

Project	Maximum Potential Customers	Forecast Customers	Gross Capital	Aid to Construction	Net Capital	SES Term (Years)	P.I.
Kettle and Stony Point F.N. and Lambton Shores	512	364	\$2.10	\$0.00	\$2.10	12	1.03
Milverton, Rostock, Wartburg	961	739	\$5.98	\$0.00	\$5.98	15	1.01
Delaware Nation of Moraviantown	71	38	\$0.56	\$0.31	\$0.25	40	1.00
Prince Township	395	291	\$2.72	\$0.00	\$2.72	22	1.00
TOTAL	1,939	1,432	\$11.36	\$0.31	\$11.05		

(Note: All dollars are in millions.)

Updated details for each Project are filed in Exhibit A, Tab 2. These details include a project summary, market profile, proposed facilities, project costs, project economics, pipeline design and construction, environmental and land matters, and First Nations and Métis consultation.

Union is prepared to initiate construction for the four proposed Projects in mid-summer in order to have the Projects in service before the end of 2017. To meet this timing, Union respectfully requests the Board issue a decision no later than June 30, 2017.

UNION GAS LIMITED

KETTLE POINT / LAMBTON SHORES NATURAL GAS PIPELINE PROJECT

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Schedule 7	DCF Analysis & Parameters
Schedule 8	Design and Pipeline Specifications
Schedule 9	Union's Standard Construction Methods
Schedule 10	Proposed Construction Schedule
Schedule 11	Environmental Protection Plan Update
Schedule 12	Land Requirements Summary

PROJECT SUMMARY

1. This evidence will update the evidence filed by Union Gas Limited [“Union’] at Exhibit A, Tab 2, Section A of the EB-2015-0179 proceeding.
2. Representatives of the Chippewas of Kettle and Stony Point First Nation, Municipal Officials, Residents, and Business Owners in and around Kettle Point and Lambton Shores which includes Ipperwash Beach, in the County of Lambton, have requested natural gas service from Union.
3. In order to meet the demands for natural gas in this area, Union is requesting pursuant to Section 90 (1) of the Ontario Energy Board Act, approval from the Ontario Energy Board [“OEB”] for Leave to Construct pipelines in Kettle Point and Lambton Shores [“Project’]. Union is also requesting an order from the OEB pursuant to section 36 (1), as described in earlier sections of this evidence.
4. Kettle Point, Ontario is the home of the Chippewas of Kettle and Stony Point First Nation, located along the southern shores of Lake Huron approximately 35 km east of Sarnia. Approximately 1000 First Nation Band members live on the reserve and 900 members live off the reserve. The First Nation community also borders the Municipality of Lambton Shores.
5. Lambton Shores, Ontario is a municipality in Lambton County that was established when the Towns of Bosanquet and Forest, and the villages of Thedford, Arkona, and Grand Bend amalgamated in 2001. Lambton Shores has an area of approximately 331 km² and a total population of approximately 10,656. Ipperwash Beach is one of the few remaining urban areas in Lambton Shores that does not currently have natural gas service.
6. A map showing the Proposed Facilities from a starting point on Union’s system to Kettle Point and Ipperwash Beach can be found at Schedule 1.
7. Union currently holds the Certificate of Public Convenience and Necessity and Franchise

Agreement (RP-2001-0049/EB-2001-0711), for the County of Lambton. Union also holds a Certificate of Public Convenience and Necessity and Franchise Agreement (EB-2002-0252), for the Municipality of Lambton Shores.

8. The route of the Proposed Facilities was selected in order to optimize economic benefits and social features while minimizing environmental impacts.
9. If this Application is approved, Union forecasts that 364 of the potential 512 customers in the Project will have natural gas service by year 10 of the Project.
10. The total capital cost of the Proposed Facilities for the first 10 years of the Project is \$2,095,346. These costs include pipeline costs, station costs, and the cost to service customers.
11. The Project has a net present value ["NPV"] of \$71,000 and a profitability index ["PI"] of 1.03.
12. An Environmental Protection Plan ["EPP"] for the Project was prepared by Union's Environmental Planning Department in 2015. Union's standard construction procedures, combined with the appropriate supplemental mitigation measures recommended in the EPP, will be employed to address environmental and public concerns. An update to the original EPP was prepared in 2017 and can be found at Schedule 11.
13. Construction of the Proposed Facilities for the Project is expected to begin in the summer of 2017 with an in service date of December 2017. Services will be constructed for the first 10 years of the Project.
14. The pipeline and station facilities have been optimized to meet the forecast future growth proposed in the area.
15. No provincial grants or aids to construct are required for this Project.

MARKET PROFILE

Community Profile

16. Kettle Point, Ontario is the home of the Chippewas of Kettle and Stony Point First Nation, located along the southern shores of Lake Huron and approximately 35 km east of Sarnia. Approximately 1000 First Nation Band members live on the reserve and 900 members live off the reserve. The First Nation Community also borders the Municipality of Lambton Shores. There is a mix of Band-owned commercial and residential properties within the Community.
17. Lambton Shores, Ontario is a municipality in Lambton County that was established when the Towns of Bosanquet and Forest, and the villages of Thedford, Arkona, and Grand Bend amalgamated in 2001. Lambton Shores has an area of approximately 331 km² and a total population of approximately 10,656. The area of Lambton Shores that is proposed to receive natural gas service is the Ipperwash Beach area which is a combination of year-round and seasonal homes.
18. In 2015, there were a total of 380 existing residential dwellings in Ipperwash Beach area, 110 existing residential dwellings in Kettle Point, and 22 medium and small commercial establishments in Kettle Point which could potentially be served with natural gas.

Residential and Commercial Surveys

19. To update the telephone survey that was completed in 2015 for the Ipperwash Beach area, a new survey was completed in 2017. The surveys informed residents about the Project, estimates of the cost to convert to natural gas, and an expansion surcharge to contribute towards the cost of the Project was included in the survey. The surveys also requested information pertaining to dwelling characteristics, use of dwelling, current fuel type and interest in converting to natural gas-fuelled appliances.
20. Of the 380 potential residential customers in the Ipperwash Beach area, 48 completed the telephone and door-to-door survey in 2017, representing a 13% response rate.

21. Kettle and Stony Point First Nation leadership have indicated they will convert 100% of band owned commercial and residential properties to natural gas (82 buildings). Union conducted a door-to-door survey of privately owned residents and commercial properties in the Fall of 2015.

Customer Attachment Forecast

22. Union is forecasting a total of 262 existing residential customers will be attached in Lambton Shores by the tenth year of the Project as outlined in the customer attachment forecast in Schedule 2.
23. For the Top 3 box scores (extremely likely, very likely, and likely to convert), the results of the telephone and door-to-door survey described above indicate that 69% of the people surveyed are interested in obtaining natural gas service.
24. Union asked participants of the survey, who were interested in connecting, the timing when they would attach, and 94% indicated they would do so in the first three years. Union has taken a conservative approach and has spread the attachments over 10 years which is reflected in Schedule 2.
25. In the First Nation area to be served there are 32 residential single family, 33 residential multi-family, and 17 commercial properties that are owned by the First Nation whereas there are 45 residential and 5 commercial privately owned properties. Union completed a door-to-door survey in 2015 and established that 38% of the private residential and 60% of the private commercial would attach. In discussions with Kettle and Stony Point they have committed that 100% of the residential and commercial properties owned by the First Nation would connect to natural gas. In addition to the consultations which have been held to date, Union plans to have a community meeting with Kettle Point. All band owned residential and commercial properties would be attached in the first year and private residential and commercial attachments would be spread out over 10 years.

26. Union is forecasting a total of 344 existing residential and 20 existing medium and small commercial will be attached by the tenth year of the Project as outlined in the customer attachment forecast in Schedule 2.
27. Union continues to work with Lambton Shores and the Chippewas of Kettle and Stony Point First Nation in the development of the Project. Attached at Schedule 3 are Letters of Support from Lambton Shores and the Chippewas of Kettle and Stony Point.

PROPOSED FACILITIES

28. Union is proposing to construct the following pipelines to serve the Project. The pipelines will start at the corner of Army Camp Road and Ravenswood Line and extend along Ipperwash Road to Highway 21. At this point the pipeline will “T” with one branch continuing along Ipperwash Road to East and West Parkway Drive. The second branch of the pipelines will go South on Highway 21 to the West Ipperwash Beach Road to serve the Kettle Point area. A schematic drawing showing the Project is provided in Schedule 4.
29. The pipelines identified above have been optimized to meet the forecast future growth in the Project.

PROJECT COSTS

30. The total estimated cost for the Proposed Project is \$2,095,346 for the first 10 years of the Project. This cost includes all pipeline and station costs of \$1,513,957 and service costs of \$581,389.
31. The estimated first year capital costs for the construction of the Proposed Facilities including service costs are provided in Schedule 5a. The estimated costs cover all costs related to materials, construction and labour required to construct distribution mains, and regulating

stations. This figure also includes estimated land costs and environmental costs.

32. A year by year breakdown of the proposed capital costs of the Project for the first 10 years of the Project can be found at Schedule 5b.

ECONOMIC FEASIBILITY

33. The Proposed Facilities are required in order to expand natural gas distribution to the Project Area.
34. A standalone Discounted Cash Flow (“DCF”) analysis was completed for the proposed expansion. Union has employed an economic feasibility test consistent with the Board’s recommendations in the E.B.O. 188 Report on Natural Gas System Expansion.
35. The DCF for the Project can be found at Schedule 6. This Schedule indicates a Net Present Value (“NPV”) of \$71,000 and Profitability Index (“PI”) of 1.03. The PI is slightly above 1.0 due to rounding effects of the System Expansion Surcharge (“SES”) term which will end on the calendar year end of Dec 31st.
36. The DCF is based on capital of \$2,095,346. Capital used in the DCF can be found in Schedule 5(a) and 5(b).
37. The DCF includes the collection of the SES at a rate of \$0.23 per m³. The SES term will have a termination date as of the end of the calendar year (December, 31 2029); approximately 12 years and 1 month from the forecast in-service date of December, 1 2017.
38. The economic analysis does not include a financial contribution from the Municipality or the First Nation.
39. No upstream reinforcement is required to complete this project.

- 40. Schedule 7 provides the key inputs, parameters and assumptions used in completing the DCF analysis.
- 41. No provincial grants or aid to construct are required for this Project.

DESIGN AND CONSTRUCTION

- 42. The design and pipe specifications are outlined in Schedule 8. 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.
- 43. All polyethylene pipe and fittings will be manufactured and certified in accordance with the *Canadian Standards Association B137.4-13 Polyethylene (PE) Piping systems for Gas Services*. The pipe specifications are designed to provide the maximum operating pressure of 550 kPa. The pipeline will be tested in accordance with the requirements of the Ontario Regulation 210/01.
- 44. The minimum depth of cover to the top of the pipe and pipe appurtenances will be in accordance with the requirements of *Clause 12.4.7 and 12.4.8 of the CSA Z662-15* for polyethylene piping.

Construction Procedures and Project Schedule

- 45. The Proposed Facilities will be constructed using Union's standard practices and procedures and will be in compliance with the mitigation measures identified in the Environmental Protection Plan ["EPP"]. Schedule 9 provides a summary of Union's standard construction methods. Union's construction procedures are continually updated and refined to minimize potential impacts to the lands and the public.
- 46. Material is readily available for the Project and Union foresees no problem in obtaining a contractor to complete the proposed construction. The EPP will be provided to the contractor.

47. Schedule 10 provides the proposed construction schedule for the Project. Construction of the Proposed Facilities is expected to begin in summer of 2017 with an in service date of December 2017. Services will continue to be installed for the first 10 years of the Project.
48. Approvals are pending from the County of Lambton, Municipality of Lambton Shores, St Clair Region Conservation Authority, Ministry of Transportation and the Chippewas of Kettle and Stony Point First Nation.

ENVIRONMENTAL MATTERS

49. The original EPP for the proposed pipeline was prepared by Union's Environmental Planning Department in 2015 and was filed with the Board as Exhibit A, Tab 2, Section A, Schedule 11 as part of the EB-2015-0179 proceeding. The EPP was prepared to meet the intent of the Board's document *"Environmental Guidelines for Locating, Constructing and Operating Hydrocarbon Pipelines in Ontario"* [2011]. An update to the original EPP was prepared in 2017 in anticipation of the Project being constructed in 2017 and can be found at Schedule 11.
50. The objectives of the EPP are to:
 - a) document existing environmental features;
 - b) identify agency, First Nation and public concerns;
 - c) identify potential environmental impacts as a result of construction;
 - d) present mitigation techniques to minimize environmental impacts; and
 - e) provide pipeline contractors and environmental inspectors involved in the construction of the pipeline with general and site-specific guidelines for environmental protection that supplement Union's construction specifications.

51. The original EPP was prepared before the scope of the Project was finalized. As such, some areas shown in the original EPP may not be included in the Project.
52. All pipelines will be constructed in the manner recommended and described in the Board document *"Environmental Guidelines for Locating, Constructing and Operating Hydrocarbon Pipelines in Ontario"*.
53. A copy of the original EPP has been submitted to the Ontario Pipeline Coordinating Committee ("OPCC"), local municipalities and the Chippewas of Kettle and Stony Point First Nation. A summary of comments and Union's response can be found in the EPP update.
54. There are a number of watercourse crossings associated with the Project. Union will follow all permit conditions from the Regulating Agency.
55. Union will work with Indigenous and Northern Affairs Canada and the Chippewas of Kettle and Stony Point First Nation to confirm any necessary approvals to construct on First Nation land.
56. When the Project is constructed, the most up-to-date construction specifications will be followed.
57. Union will ensure that the recommendations in the EPP, commitments and the conditions of approval are followed. An environmental inspector will be assigned to the Project to ensure that all activities comply with all of the Board's conditions of approval.
58. The results of the EPP and update indicate that the environmental and socio-economic effects associated with construction of the Project are generally short-term in nature and minimal. There are no significant cumulative effects as a result of this pipeline construction.

LAND MATTERS

59. The Proposed Facilities will be located within road allowances.

60. It will be necessary to obtain a small station site at the corner of Ravenswood Line and Army Camp Road. Preliminary discussions have not identified any issues with obtaining the lands required for this station.
61. A table summarizing all the land requirements can be found in Schedule 12.

INDIGENOUS AND MÉTIS NATIONS CONSULTATIONS

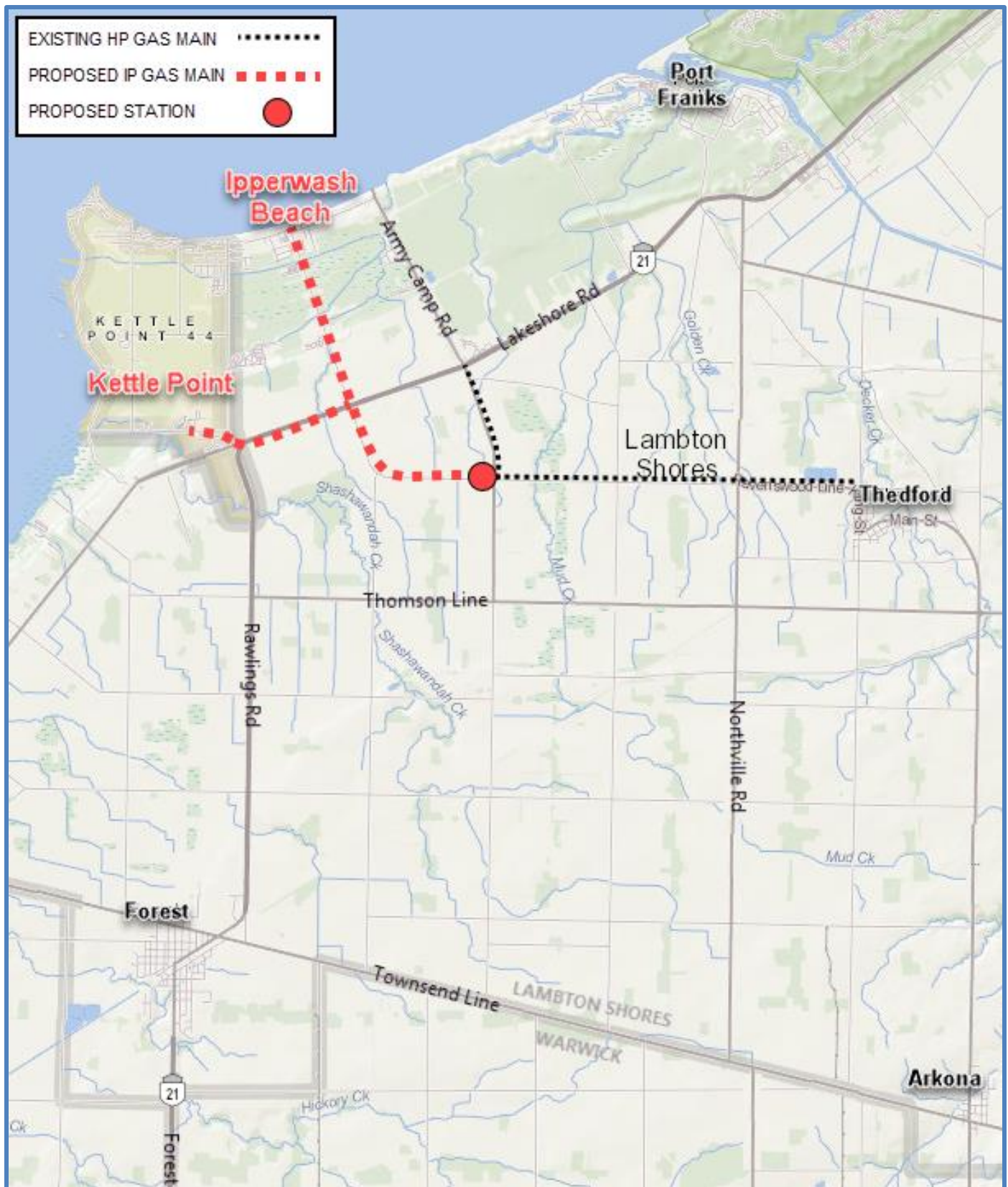
62. Union has a long standing practice of consulting with First Nation and Métis, and has programs in place whereby Union works with them to ensure they are aware of Union's projects and have the opportunity to participate in both the planning and construction phases of the Project.
63. Union has an extensive data base and knowledge of First Nations and Métis organizations in Ontario and consults with the Tribal organizations and the data bases of the Ministry of Natural Resources, Ministry of Energy and Aboriginal Affairs and Indigenous and Northern Affairs Canada to ensure consultation is carried out with the most appropriate groups.
64. Union has consulted with Chippewas of Kettle and Stony Point First Nation since 2004 and continues to meet and consult with them on expansion of natural gas facilities to their community. The following is a summary of consultation which has occurred.

February 2, 2017	Union met with Lorraine George Band Manager to review project
April 2, 2016	Participated in community meeting held in Kettle and Stony Point First Nation on the project
February 29, 2016	Presentation to Joint Lambton Shores and Kettle and Stony Point First Nations Councils on the expansion project
November 23 to 30, 2015	Completed door to door survey with Kettle and Stony Point community residents for acceptance to hook up to natural gas
September 2, 2015	Union met with Chief Bressette and Lorraine George Band Manager to request their support for the project, Chief Bressette to submit support letter to Ontario Energy Board

April 21, 2015	Union provided an email update to Lorraine George Band Manager Kettle and Stony Point First Nation on OEB filing information
Oct 1, 2014	Kettle and Stony Point First Nation submitted Scenario 1 and support material from the Union presentation to AANDC for funding
September 10, 2014	Meeting with Chief Bressette and Lorraine George Band Manager Kettle and Stony Point First Nation and Union to discuss project
May 28, 2014	Call with Jacklyn Martin Hill Kettle and Stony Point First Nation to discuss project and next steps
May 5, 2014	Union presented to Chief and Council. Council to respond on which approach to take in 2 weeks
February 13, 2014	Lorraine George Band Manager Kettle and Stony Point First Nation, Chief Tom Bressette and Union to review information on presentation before Chief and Council meeting. Chief requested Union provide a full community piping proposal.
January 14, 2014	Comments from Kettle and Stony Point First Nation: Council endorsed the full development plan in principle with follow up reports and timelines to now be provided.
Aug. 29, 2013	Lorraine George Band Manager Kettle and Stony Point First Nation and Union met to discuss various options. Sept 17th Growth plan being presented to Chief and Council.
From 2006 - 2013	Union met with Kettle and Stony Point First Nation leadership and community teams on many occasions to discuss expansion into Community. Changes in leadership and community teams resulted in numerous iterations being developed and presented

65. During construction, Union has inspectors in the field who are available to First Nations and Métis Nation of Ontario as a primary contact to discuss and review any issues that may arise during construction.
66. When Union completes the necessary archaeological assessments for the Project Union will consult with and provide the result of the surveys to any First Nations or Métis Nation of Ontario upon their request.

Kettle Point & Lambton Shores – Community Expansion Key Plan



Lambton Shores and Kettle Point Attachment Forecast

Classification	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total	Ultimate Potential	Total Attachments % Potential
Residential Conversion - Lambton Shores	71	63	24	17	13	16	14	16	15	13	262	380	69%
Residential Conversion -Kettle Point (Band Owned)	32	0	0	0	0	0	0	0	0	0	32	32	100%
Residential Conversion Multi Family-Kettle Point (Band Owned)	33	0	0	0	0	0	0	0	0	0	33	33	100%
Residential Conversion -Kettle Point (Private)	4	4	2	1	1	1	1	1	1	1	17	45	38%
Small Commercial - Band Owned	5	0	0	0	0	0	0	0	0	0	5	5	100%
Small Commercial - Privately Owned	1	1	1	0	0	0	0	0	0	0	3	5	60%
Medium Commercial - Band Owned	11	0	0	0	0	0	0	0	0	0	11	11	100%
Large Commercial - Band Owned	1	0	0	0	0	0	0	0	0	0	1	1	100%
Total	158	68	27	18	14	17	15	17	16	14	364	512	71%



Chippewas of Kettle & Stony Point First Nation

6247 Indian Lane

Kettle & Stony Point FN, Ontario, Canada N0N 1J1

March 6, 2017

James Whittaker,
Manager, Community Expansion.
P.O. Box 5353 Station A
109 Commissioners Rd. W.
London, ON N6A 4P1

Re: EB-2015-0179 – Natural Gas Expansion

As a follow up to the application Union Gas made in 2015 for the expansion of natural gas services to the Upperwash area of both the Chippewas of Kettle & Stony Point First Nation and Lambton Shores, I would like to re-confirm our support for the submission by Union Gas to the Ontario Energy Board for extending natural gas to our community.

It is understood that a system expansion surcharge will be required to assist with the cost of expanding natural gas within our community but there is still significant energy savings to our community for our heating needs. The project would provide value and the opportunity for future expansions within our community as well as for potential economic development. Natural gas is a reliable source of energy for our community, the rates are stable, and it offers the lowest GHG emissions compared to propane and heating oil, which are elements of benefit to our community and its members.

In her 2014 mandate letters to various Ministers, Premier Wynne indicated that extending natural gas to currently underserved communities is a priority for the Province of Ontario. As a result, in 2015 the Ontario Energy Board requested recommendations/suggestions for regulatory reform that would enable expansion projects to move forward. The OEB released its decision on expanding to new communities in November 2016.

Expanding natural gas servicing in our community will make a significant contribution in achieving the stated priority of the Province in terms of energy efficiency and standards.

Your attention to this matter, and the timely approval of the application, would be appreciated as the Chippewas of Kettle & Stony Point First Nation has been waiting for many years for the opportunity to access natural gas as an energy option in our community.

Sincerely,

Chief Thomas Bressette,
Chippewas of Kettle and Stony Point First Nation



THE MUNICIPALITY OF

LAMBTON SHORES

Administration Office - 7883 Amtelecom Parkway, Forest, ON N0N 1J0

T: 519-786-2335 / 1-877-786-2335 F: 519-786-2135

23 March 2017

Mr. James Whittaker
Union Gas Community Expansion Manager
PO Box 5353 Station A
109 Commissioners Road West
London, ON. N6A 4P1

**Re: OEB File Number EB-2015-0179
Municipality of Lambton Shores and Kettle and Stoney Point First Nation Service
Expansion Project**

On behalf of the Municipality of Lambton Shores I thank you for arranging the presentation made to Council by Mr. Jackson and Mr. Thompson on the evening of March 7th. I am sure you have heard that the presentation was well received by Council. As disappointing as it was to hear that the 2016 attempts at encouraging regulatory reform were not entirely successful, it was good to hear that Union Gas has ascertained that the application of a modest System Expansion Surcharge (SES) could enable the project to proceed as early as this spring. Accordingly, Council was quick to approve the following motion:

17-0307-04 THAT staff provide a letter of support to the Ontario Energy Board regarding an expansion by Union Gas into the Ipperwash Beach Area.


It is my understanding that this letter of support will be submitted by Union Gas as a part of the regulatory approval process.

Since the time of this meeting, I have now read correspondence from Board Secretary Kirsten Wali to Karen Hockin at Union Gas, and more recently from Union Gas' legal firm Torys LLB to Ms. Wali at the Board. My understanding of the documents is that the proposed 2017 construction period may be in jeopardy, pending a review of other potential service providers. This is disappointing.

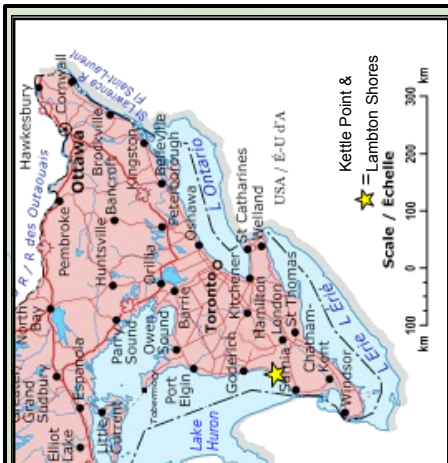
It is my understanding that Union Gas is, and has been, Lambton Shores' provider of natural gas services though a Franchise Agreement and Certificate of Public Convenience granted by the Board dating back to 1971. As you are well aware, we have always considered the Ipperwash "expansion" as simply a means to provide service to a small unserved pocket of our Community in an area otherwise surrounded by Union Gas services. It is my intention to write directly to the OEB to ensure they have the same understanding.

Again, on behalf of Lambton Shores, I thank you for your continuing efforts to expand gas services in our community. Despite this most recent "wrinkle" to the regulatory process, we remain optimistic that the necessary approvals will be provided so that construction can proceed in 2017.

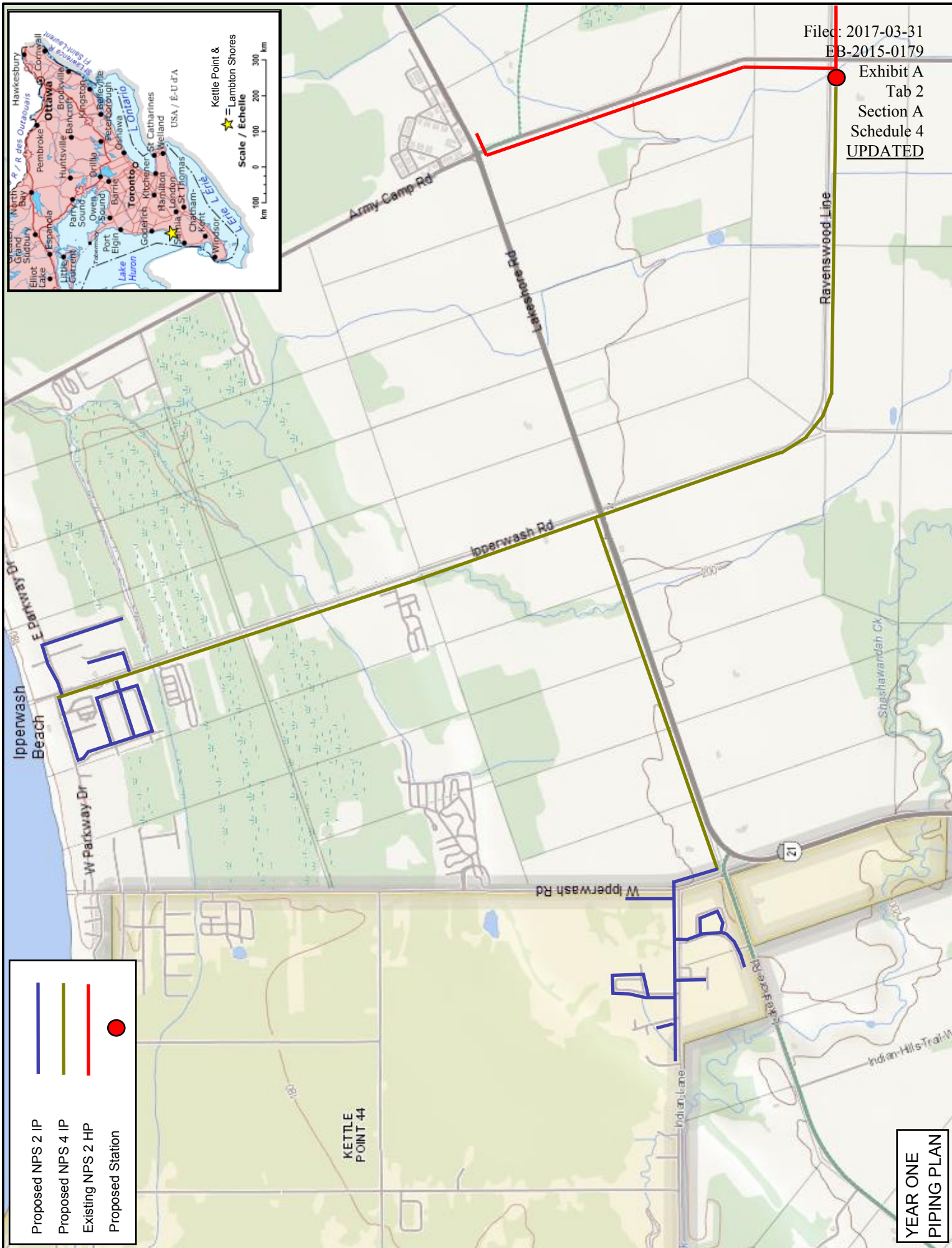
Sincerely,



Kevin Williams
Chief Administrative Officer



Filed: 2017-03-31
EB-2015-0179
Exhibit A
Tab 2
Section A
Schedule 4
UPDATED



Proposed NPS 2 IP
Proposed NPS 4 IP
Existing NPS 2 HP
Proposed Station

TOTAL ESTIMATED CAPITAL COSTS – YEAR 1

KETTLE POINT AND LAMBTON SHORES EXPANSION PROJECT

Total Materials	\$175,880	\$175,880
Total Contract Cost	\$935,741	\$935,741
Total Company Costs	\$22,220	\$22,220
Miscellaneous (XRay, Construction Survey, Lands)	\$113,510	\$113,510
Station Labour and Materials	\$208,239	\$208,239
Contingency	\$58,367	\$58,367
Interest During Construction	\$0	
Service Costs	\$264,217	\$264,217
 Total Estimated Capital Costs		 \$1,778,174

Lambton Shores-Kettle Point

Proposed Capital (\$000's)

Pipeline & Station Capital
 Service, M&R Installation
 Total

Year	1	2	3	4	5	6	7	8	9	10
Total										
1,514	1,514									
581	264	105	43	27	21	26	23	26	24	21
2,095	1,778	105	43	27	21	26	23	26	24	21

Lambton Shores - Kettle Point

Project Year	21	22	23	24	25	26	27	28	29	30
Cash Inflow										
Revenue	108	108	108	108	108	108	108	108	108	108
System Expansion Surcharge (SES)	-	-	-	-	-	-	-	-	-	-
Municipal Financial Support	-	-	-	-	-	-	-	-	-	-
Expenses:										
O & M Expense	(29)	(28)	(28)	(28)	(29)	(29)	(30)	(30)	(31)	(31)
Municipal Tax	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)
Income Tax	(5)	(6)	(6)	(7)	(7)	(8)	(8)	(8)	(9)	(9)
Net Cash Inflow	54	54	53	52	51	50	49	48	48	47
Cash Outflow										
Incremental Capital	-	-	-	-	-	-	-	-	-	-
Change in Working Capital	(0)	(0)	0	0	0	0	0	0	0	0
Cash Outflow	(0)	(0)	0	0	0	0	0	0	0	0
Cumulative Net Present Value										
Cash Inflow	1,910	1,928	1,945	1,961	1,976	1,990	2,004	2,016	2,027	2,038
Cash Outflow	2,045	2,045	2,045	2,045	2,045	2,045	2,045	2,045	2,045	2,045
NPV By Year	(135)	(117)	(100)	(84)	(69)	(55)	(41)	(29)	(17)	(7)
Project NPV										
Profitability Index										
By Year PI	0.93	0.94	0.95	0.96	0.97	0.97	0.98	0.99	0.99	1.00
Project PI	1.00									

Lambton Shores - Kettle Point

Project Year	(2020)	(2021)	(2022)	(2023)	(2024)	(2025)	(2026)	(2027)	(2028)	(2029)	(2030)
Cash Inflow											
Revenue	108	108	108	108	108	108	108	108	108	108	108
System Expansion Surcharge (SES)	-	-	-	-	-	-	-	-	-	-	-
Municipal Financial Support	-	-	-	-	-	-	-	-	-	-	-
Expenses:											
O & M Expense	(32)	(32)	(33)	(33)	(34)	(34)	(34)	(34)	(34)	(34)	(34)
Municipal Tax	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)
Income Tax	(9)	(9)	(9)	(10)	(10)	(10)	(10)	(10)	(10)	(11)	(11)
Net Cash Inflow	46	46	45	44	44	43	43	43	42	42	42
Cash Outflow											
Incremental Capital	-	-	-	-	-	-	-	-	-	-	-
Change in Working Capital	0	0	0	0	0	0	0	0	0	0	0
Cash Outflow	0	0	0	0	0	0	0	0	0	0	0
Cumulative Net Present Value											
Cash Inflow	2,048	2,058	2,067	2,075	2,083	2,090	2,097	2,104	2,110	2,116	2,116
Cash Outflow	2,045	2,045	2,045	2,045	2,045	2,045	2,045	2,045	2,045	2,045	2,045
NPV By Year	3	13	22	30	38	45	52	59	65	71	71
Project NPV											
Profitability Index											
By Year PI	1.00	1.01	1.01	1.01	1.02	1.02	1.03	1.03	1.03	1.03	1.03
Project PI	1.03										

**Lambton Shores - Kettle Point
(Project Specific DCF Analysis)
Stage 1 DCF - Listing of Key Input
Parameters, Values and Assumptions
(\$000'S)**

Discounting Assumptions

Project Time Horizon

40 years commencing at facilities in-service date of
01 Dec 17

Discount Rate

Incremental after-tax weighted average
cost of capital of 5.10%

**Key DCF Input Parameters,
Values and Assumptions**

Net Cash Inflow:

Incremental Distribution Revenue:

General Service rates

System Expansion Surcharge (SES)

Municipal Financial Support

Term of SES

Term of Municipal Financial Support

Approved per EB-2016-0334 Effective January 1, 2017

\$0.23 / M3

Voluntary Financial Support

12 years

0 years

Operating and Maintenance Expense

Estimated incremental cost

Incremental Tax Expenses:

Municipal Tax

Income Tax Rate

Estimated incremental cost

26.50%

CCA Rates:

CCA Classes:

Eligible Capital Expenditure (ECE)

Class 51 (Distribution Mains)

Class 51 (Distribution Services)

Class 51 (Measuring & Regulating Equipment)

Declining balance depreciation rates by CCA class:

7%

6%

6%

6%

Cash Outflow:

Incremental Capital Costs Attributed

Refer to Schedule 5

Change in Working Capital

5.0513% applied to O&M

KETTLE POINT AND LAMBTON SHORES DESIGN AND PIPE SPECIFICATIONS
POLYETHYLENE PIPING

Design Specifications

Design Factor	- 0.40
Maximum Operating Pressure	- 550 kPa
Test Medium	- Air , Nitrogen, or Water
Minimum Test Pressure	- 770 kPa
Minimum Depth of Cover (General)	- 0.6 m
Minimum Depth of Cover (Road Crossings)	- 0.6 m
Minimum Depth of Cover (Water Crossings)	- 1.2 m

Pipe Specifications

Size	- NPS 4
SDR	- 11
Description	- C.S.A. Standard B137.4-13
Size	- NPS 2
SDR	- 11
Description	- C.S.A. Standard B137.4-13

GENERAL TECHNIQUES AND METHODS OF CONSTRUCTION

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. *Ontario Traffic Manual – Book 7 – Temporary Conditions* is followed as a minimum requirement for the purpose of traffic control.
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 as approved by the Municipality.

Stringing

7. The pipe is strung adjacent to the running line. 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

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

Burying

9. Pipe may be buried using either the trench method or the trenchless method. 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 trenching machine, plough, or hoe excavator depending upon the ground conditions. Provisions are made to allow residents access to their property, as required. Any drainage tiles that the

owner is aware of should be marked and will be spotted. All marked drainage tiles that are cut during the trench excavation are flagged to signify that a repair is required. 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. **Trenchless Method:** Trenchless methods are alternate methods used to install pipelines under railways, roads, sidewalks, trees and lawns. There are two trenchless methods that could be used for the proposed pipeline, depending on the soil conditions, length and size of the installation. These methods are boring (auguring) and directional drilling.

Tie-Ins

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

Cleaning and Testing

11. To complete the construction, the pipeline is cleaned and tested in accordance with Union's specifications.

Restoration

12. The final activity is the restoration. The work area is leveled, the sod is replaced in lawn areas and other grassed areas are re-seeded with topsoil and grass seed. Where required, concrete, asphalt and gravel are replaced to return the areas to as close to the original conditions as possible.

Kettle Point - Lambton Shores Pipeline Construction Schedule

Task Name	2016			2017												2018							
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug
Environmental Assessments and Approvals																							
Engineering																							
Pre-Construction Survey																							
Material Acquisition																							
File Application																							
OEB Approval																							
Construction Survey																							
Construction and Testing																							
Initial In-Service																							
Clean-Up																							

Kettle Point/Lambton Shores Natural Gas Pipeline Project

Environmental Protection Plan Update

Introduction

In July of 2015 Union Gas Limited (Union Gas) applied to the Ontario Energy Board (“OEB”) for its Community Expansion Program. In January of 2016 the OEB adjourned Union Gas’s application and initiated a generic hearing to review community expansion projects throughout Ontario. The OEB released its decision on the generic proceeding in November of 2016. After reviewing the November 2016 decision it was necessary for Union Gas to update its evidence to be consistent with the generic decision. The Kettle Point/Lambton Shores Natural Gas Pipeline Project (the Project) was one of the projects included in the Community Expansion Program.

Union Gas Limited (Union Gas) has been bringing, clean, reliable, and affordable natural gas service for more than a century to over 400 communities across Ontario and as part of its Community Expansion Program, is proposing to bring natural gas service to the communities of Kettle Point and Lambton Shores.

This document will update the Environmental Protection Plan prepared in May 2015 for the Kettle Point/Lambton Shores Natural Gas Pipeline Project filed with the OEB as part of Union Gas’s Community Expansion Program.

Project Description

The Project consists of a proposed pipeline approximately 20.3 kilometres in length, including 10.4 kilometres of NPS (Nominal Pipe Size) 4 inch plastic pipeline (NPS 4 PE piping), and 9.9 kilometres of NPS 2 inch plastic pipeline (NPS 2 PE piping). A map identifying the running line is attached in Appendix A.

NPS 6 inch plastic pipeline was originally proposed from Ravenswood Line at Army Camp Road to West Ipperwash Road. Union Gas is now proposing NPS 4 PE piping for this section.

Environmental Planning Process

Union Gas initiated the Environmental Assessment (EA) process in May 2015 with the completion of an Environmental Protection Plan (EPP). The EPP was prepared to document a plan for the protection of the environment during construction of the natural gas pipeline, and more specifically:

- Describe the proposed work necessary for the Project;
- Describe the procedures that will be followed during construction of the facilities;
- Identify potential environmental impacts and recommend measures to minimize those impacts; and
- Describe public consultation opportunities.

The EPP was mailed to the Ontario Pipeline Coordinating Committee (OPCC), First Nations, and other relevant agencies for review on June 1st, 2015. Please see Appendix B for a summary of OPCC, First Nations, and agency comments and Union Gas's subsequent response regarding the EPP and the Project in general. There are no outstanding issues from the OPCC review.

Environmental Features Along the Route of the Proposed Pipeline

Archaeology

Union Gas retained the services of D.R. Poulton & Associates Inc. to complete Stage 1 and 2 archaeological assessments for the Project in accordance with the Ministry of Tourism, Culture and Sport (MTCS) guidelines. No archaeological remains were documented in the course of the archaeological assessments. Approval was received and the Stage 1 – 2 Archaeological Assessment Report was entered into the Ontario Public Register of Archaeological Reports on July 28th, 2016. The approval letter recommended that no further archaeological assessment would be required for the proposed pipeline. The approval letter also recommended that the proposed land for the distribution station be subject to a Stage 2 survey as soon as access to the land has been granted. Access to the land has not yet been granted but the Stage 2 survey will be completed once it has.

First Nations Monitors from the Delaware Nation at Moraviantown, Walpole Island First Nation, and the Chippewas of Kettle and Stony Point participated during the Stage 2 survey on October 26th, 2015. First Nations Monitors will again be invited to participate in the Stage 2 survey of the proposed station land.

Cultural Heritage

Union Gas retained the services of Stantec Consulting Ltd. to complete an overview of the heritage resources along the proposed pipeline route to ensure built heritage resources and cultural heritage landscapes are not impacted by the Project. The Overview of Cultural Heritage Resources Report concluded that impacts are not anticipated to cultural heritage resources. The MTCS reviewed and accepted this report on February 26th, 2016.

Natural Environmental Features

Union Gas retained the services of Neegan Burnside Ltd. to complete an Environmental Constraints Screening Report for the Project. The report provided a description of the terrestrial and aquatic environments, a list of endangered and threatened species in the vicinity of the proposed pipeline route, and recommended mitigation measures to avoid/minimize impacts to such environments and species. Union Gas will implement the recommended mitigation measures as well as Union Gas's standard mitigation measures for pipeline construction.

Union Gas and Neegan Burnside Ltd. will review the route of the proposed pipeline again to ensure that there have been no significant changes to the environmental features identified during the original EA.

Summary

This update has been prepared as an update to the original EPP. All of the mitigation measures recommended in the EPP, Stage 1 - 2 Archaeological Assessment Report, Overview of Cultural Heritage Resources Report, and Environmental Constraints Screening Report will be adhered to during construction. The proposed station land will also be subject to a Stage 2 archaeological survey before construction commences and the pipeline route will be reviewed in the field to ensure there are no changes to environmental features which require additional mitigation measures to be implemented.

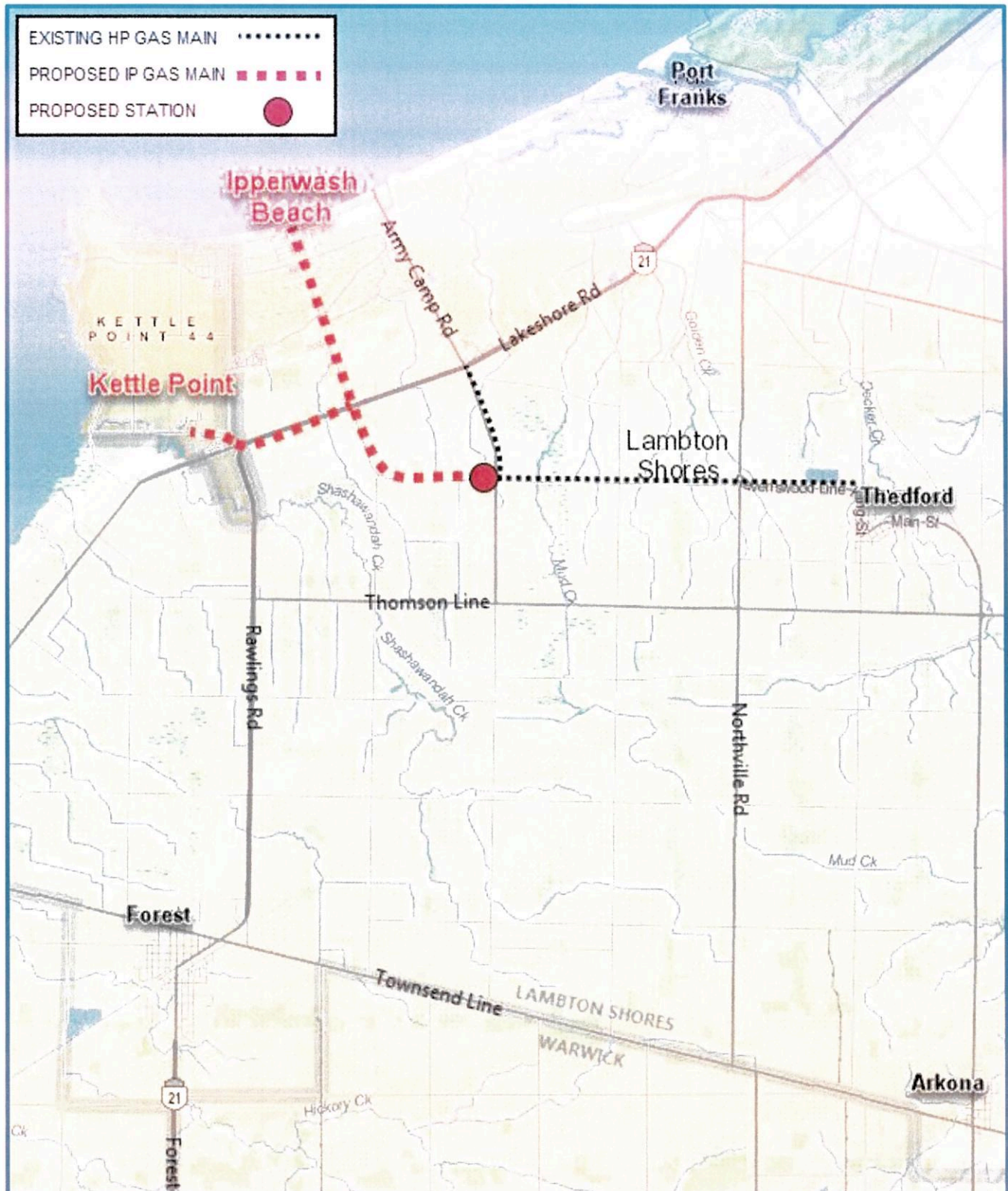
All comments received from the OPCC, First Nations, and other relevant agencies regarding the Project and/or the EPP have been noted and addressed as required.

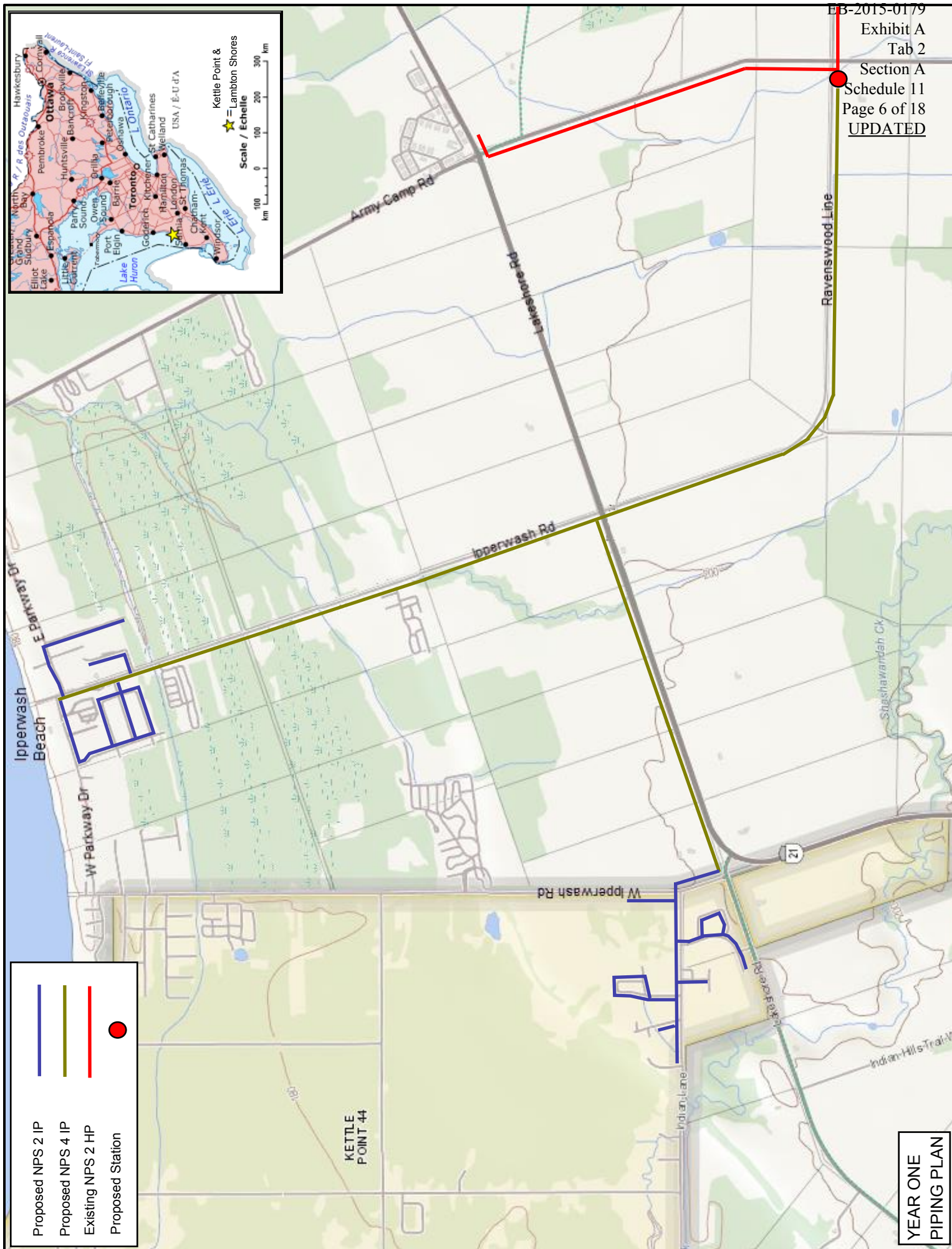
With the implementation of the recommended mitigation measures, and ongoing agency communication, the Kettle Point/Lambton Shores Natural Gas Pipeline Project is not anticipated to have any significant adverse environmental or socio-economic impacts.

APPENDIX A

PROJECT MAPPING

Kettle Point & Lambton Shores – Community Expansion Key Plan





APPENDIX B

OPCC REVIEW SUMMARY

OPCC Review Summary

Kettle Point/Lambton Shores Natural Gas Pipeline Project

AGENCY	COMMENT	RESPONSE
Technical Standards and Safety Authority Email dated June 22, 2015	The design and piping specifications project meet the requirements of O. Reg. 210/01. I'm passing the documentation submitted to Mike Davis, our regional manager for his knowledge and/or actions that may be required.	Not Required.
Technical Standards and Safety Authority Email dated June 22, 2015	Please include Inspector Curtis Poulin and Lead Inspector and Investigator Inspector Ralph Schubert in all communication for this site.	Not Required.
St. Clair Region Conservation Authority (SCRCA) Email dated August 5, 2015	SCRCA does not regulate the lands on Kettle Point First Nation. The lands outside of Kettle Point First Nation are all within areas affected by SCRCA regulations. Provided a list of fees for EA services offered by SCRCA (data collection, environmental studies, etc.). Provided a link to the Thames-Sydenham Source Protection Region Assessment Reports.	Not Required.
Ministry of Tourism, Culture & Sport (MTCS) Email and letter dated August 6, 2015	Email containing a letter to Zora Crnojacki: Provide MTCS with any archaeological assessment and/or cultural heritage assessment reports and/or technical heritage study prior to issuance of a Notice of Completion. Engagement with Aboriginal communities should include a discussion about known or potential cultural heritage resources and other local heritage organization should be consulted as required. Avoid assuming there will be no	Email containing a letter dated November 23, 2015: Engagement with the Chippewas of Kettle and Stony Point First Nation has been ongoing from the onset of the Stage 1 Archaeological Assessment and cultural heritage study. Archaeological monitors from Chippewas of Kettle and Stony Point First Nation, Delaware Nation at Moraviantown, and Walpole Island First Nation were involved in Stage 2 surveys. No sites have been discovered and the Stage 1 and 2

	<p>impacts to archaeological resources; recommend including the weighting of actual or potential impacts in the evaluation of alternatives.</p> <p>The MTCS Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes should be completed and included in the EA report or file.</p> <p>A Heritage Impact Assessment is recommended if potential or known heritage resources exist.</p> <p>MTCS requests continued circulation through the EA process.</p>	<p>Archaeological Assessment Report is being finalized for submission to the MTCS.</p> <p><i>An Overview of Heritage Resources</i> report is being finalized and the <i>MTCS Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes</i> has been completed.</p>
--	--	--

Tomek, Evan

From: Oscar Alonso <oalonso@tssa.org>
Sent: June-22-15 4:05 PM
To: Park, Ryan
Cc: Mike Davis
Subject: Kettle Point/Lambton Shores Natural Gas Pipeline Project

Thanks Ryan for the information. The design and piping specifications project meet the requirements of O. Reg. 210/01.

I'm passing the documentation submitted to Mike Davis, our regional manager for his knowledge and/or actions that may be required.

Regards,

Oscar Alonso, P.Eng.,
Fuels Safety Engineer

This electronic message and any attached documents are intended only for the named recipients. This communication from the Technical Standards and Safety Authority may contain information that is privileged, confidential or otherwise protected from disclosure and it must not be disclosed, copied, forwarded or distributed without authorization. If you have received this message in error, please notify the sender immediately and delete the original message.

Tomek, Evan

From: Mike Davis <mdavis@tssa.org>
Sent: June-22-15 5:07 PM
To: Park, Ryan
Cc: Oscar Alonso; Curtis Poulin; Ralph Schubert
Subject: Re: Kettle Point/Lambton Shores Natural Gas Pipeline Project

Greetings please include. Inspector. Curtis. Poulin. Lead. Inspector and Investigator Inspector. Ralph. Schubert in all communication for this site. Thanks to all. Mike. Davis

Sent From: iPhone



On Jun 22, 2015, at 16:09, Park, Ryan <RDPark@uniongas.com> wrote:

Oscar,

Thank you very much; I look forward to any comments or requirement Mike may have.

Regards,

Ryan Park, B.Sc., Can-CISEC
Senior Environmental Planner, Permitting & Environmental Planning
Union Gas Limited | A Spectra Energy Company
Ph: 519 436-2460 x5233007
Cell: 519 350-0289

From: Oscar Alonso [<mailto:oonson@tssa.org>]
Sent: June-22-15 4:05 PM
To: Park, Ryan
Cc: Mike Davis
Subject: Kettle Point/Lambton Shores Natural Gas Pipeline Project

Thanks Ryan for the information. The design and piping specifications project meet the requirements of O. Reg. 210/01.

I'm passing the documentation submitted to Mike Davis, our regional manager for his knowledge and/or actions that may be required.

Regards,

Oscar Alonso, P.Eng.,
Fuels Safety Engineer

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Tomek, Evan

From: Sarah Hodgkiss <shodgkiss@scrca.on.ca>
Sent: August-05-15 3:11 PM
To: Park, Ryan
Subject: Kettle Point/Lambton Shores Natural Gas Pipeline Project

Hi Ryan,

The St. Clair Region Conservation Authority (SCRCA) acknowledges receipt of your letter regarding the proposed Kettle Point/Lambton Shores Natural Gas Pipeline Project. Please note that SCRCA does not regulate the lands on Kettle Point First Nation. However, the land of the proposed distribution station, and proposed NPS 6 and NPS 4 are all within areas affected by SCRCA regulations.

Please see below the list of fees for EA service as approved by our Board of Directors.

PLANNING SERVICE FEES	
Technical Report Review and Background Data Collection/Provision	
Data Requests (plus tax)	
Minimum Base (includes up to 3 data sets) plus \$100.00 per data set***	
Report Review and Background Data Collection (non Environmental Assessment Act)	Natural Hazard
Minor (scoped)	
Scoped impact study and proposed mitigation measures– (ie. internal review of : floodline, coastal , hydrogeology, geotechnical, meander belt, wetland (scoped EIS/DAR))	\$300.00
Major	
Comprehensive impact study and proposed mitigation measures - (ie. floodline, coastal , geotechnical, hydrogeology, geotech, meander belt, full EIS/DAR)	\$500
Report review - external review	BOQ ² ie. Coastal or Geotech \$2,000.00 - 8,000.00
**Authority staff reserve the right to charge technical report review fees over the above noted fees for complex projects having potential significant impact. Costs will be related to multiple technical report reviews, multiple meetings, etc Director and GM to approve fee.	
***data sets - regulation limit mapping, ESA mapping & info, wetland mapping & info, benthic sampling data, water quality data, fish sampling data	
¹ includes applicable adjacent lands	
² BOQ - based on quote	

The Thames-Sydenham Source Protection Region has recently prepared Assessment Reports designed to identify and help address drinking water source protection concerns. The reports and relevant maps are available at: <http://www.sourcewaterprotection.on.ca>. Source Protection policies have been developed with the intent to reduce risks posed by identified water quality and quantity threats in these vulnerable areas. These draft policies are also available on the website.

If you wish to proceed and obtain any of the above listed information, please forward the required fee along with your request.

Sarah

Sarah Hodgkiss

St. Clair Region Conservation Authority
Planning Ecologist

(519) 245-3710 ext. 234

shodgkiss@scrca.on.ca

205 Mill Pond Cresc.
Strathroy ON N7G 3P9

**Ministry of Tourism,
Culture and Sport**

Culture Services Unit
Programs and Services Branch
401 Bay Street, Suite 1700
Toronto ON M7A 0A7
Tel: 416 314 7145
Fax: 416 212 1802

**Ministère du Tourisme,
de la Culture et du Sport**

Unité des services culturels
Direction des programmes et des services
401, rue Bay, Bureau 1700
Toronto ON M7A 0A7
Tél: 416 314 7145
Télé: 416 212 1802



August 6, 2015 (EMAIL ONLY)

Zora Crnojacki, Coordinator
Ontario Pipeline Coordination Committee
Ontario Energy Board
Suite 2601, 2300 Yonge Street
Toronto, ON M4P 1E4
E: zora.crnojacki@ontarioenergyboard.ca

RE: MTCS file #: 0002990
Proponent: Union Gas
Subject: Environmental Protection Plan
Kettle Point / Lambton Shores Natural Gas Pipeline Project
Location: Municipality of Lambton Shores, County of Lambton, Ontario

Dear Zora Crnojacki:

The Ministry of Tourism, Culture and Sport (MTCS) is in receipt of the Environmental Protection Plan for the above project. MTCS's interest in this EA project relates to its mandate of conserving Ontario's cultural heritage, which includes:

- Archaeological resources, including land-based and marine;
- Built heritage resources, including bridges and monuments; and,
- Cultural heritage landscapes.

Under the ER process for Ontario Energy Board projects, the proponent is required to determine a project's potential impact on cultural heritage resources. MTCS should be provided with any archaeological assessment and/or cultural heritage assessment reports completed for the above project prior to issuance of a Notice of Completion.

While some cultural heritage resources may have already been formally identified, others may be identified through screening and evaluation. Aboriginal communities may have knowledge that can contribute to the identification of cultural heritage resources, and we suggest that any engagement with Aboriginal communities includes a discussion about known or potential cultural heritage resources that are of value to these communities. Municipal Heritage Committees, historical societies and other local heritage organizations may also have knowledge that contributes to the identification of cultural heritage resources.

Archaeological Resources

It is understood from the Environmental Protection Plan that a Stage 1 archaeological assessment (AA) shall be undertaken by an archaeologist licenced under the OHA, who is responsible for submitting the report directly to MTCS for review. While construction is described as remaining entirely within the disturbed portion of the road allowance, we note that many of these corridors comprise original concession and early EuroCanadian settlement roads, built prior to archaeological assessments, and so may intersect as yet unregistered archaeological sites. The scope of soil disturbance related to the project also includes proposed regulating stations and may involve temporary staging and stockpiling areas and access routes which may be relatively undisturbed. As a result, we advise against presuming that there will be no impacts to archaeological resources and instead recommend including the weighting of actual or potential impacts in the evaluation of alternatives.

Built Heritage and Cultural Heritage Landscapes

The Environmental Protection Plan confirms that the study area will be screened for potential built heritage and cultural heritage landscapes. The MTCS *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes* should be completed to help determine potential impacts to impact cultural heritage resources. The Clerks for the Municipality of Lambton Shores and County of Lambton can provide information on property registered or designated under the *Ontario Heritage Act*. Municipal Heritage Planners can also provide information to complete the checklist.

If potential or known heritage resources exist, MTCS recommends that a Heritage Impact Assessment (HIA), prepared by a qualified consultant, should be completed to assess potential project impacts. Our Ministry's *Info Sheet #5: Heritage Impact Assessments and Conservation Plans* outlines the scope of HIAs. Any HIA completed is to be sent to MTCS for review, and made available to local organizations or individuals who have expressed interest in heritage.

Environmental Assessment Reporting

All technical heritage studies and their recommendations are to be addressed and incorporated into EA projects. Technical heritage studies completed for the EA project are to be provided to MTCS before a Notice of Completion is issued. If screening has identified no known or potential cultural heritage resources, or no impacts to these resources, the completed checklists and supporting documentation should be included in the EA report or file.

MTCS requests continued circulation through the EA process: I may be contacted for any questions or clarification.

Sincerely,

Joseph Muller, RPP/MCIP
Heritage Planner
Joseph.Muller@Ontario.ca

Copied to: Ryan Park, Senior Environmental Planner, Union Gas

It is the sole responsibility of proponents to ensure that any information and documentation submitted as part of their EA report or file is accurate. MTCS makes no representation or warranty as to the completeness, accuracy or quality of the any checklists, reports or supporting documentation submitted as part of the EA process, and in no way shall MTCS be liable for any harm, damages, costs, expenses, losses, claims or actions that may result if any checklists, reports or supporting documents are discovered to be inaccurate, incomplete, misleading or fraudulent.

MTCS must be notified if archaeological resources are impacted by EA project work. All activities impacting archaeological resources must cease immediately, and a licensed archaeologist is required to carry out an archaeological assessment in accordance with the Ontario Heritage Act and the Standards and Guidelines for Consultant Archaeologists.

If human remains are encountered, all activities must cease immediately and the local police as well as the Cemeteries Regulation Unit of the Ministry of Government and Consumer Services must be contacted. In situations where human remains are associated with archaeological resources, MTCS should also be notified to ensure that the site is not subject to unlicensed alterations which would be a contravention of the Ontario Heritage Act.

Tomek, Evan

From: Tomek, Evan
Sent: November-23-15 12:42 PM
To: 'Joseph.Muller@Ontario.ca'
Subject: Community Expansion Program Update
Attachments: MTCS Moraviantown Update.pdf; MTCS Walpole Update.pdf; MTCS Milverton Update.pdf; MTCS KP LS Update.pdf

Good Afternoon Joseph,

Thank you for your reviews of Union Gas' Environmental Protection Plans for our Moraviantown, Walpole Island, Milverton, and Kettle Point / Lambton Shores Natural Gas Pipeline Projects.

I have attached four letters providing an update regarding our Archaeology and Cultural Heritage works for each project.

I appreciate your time with these reviews, and if you have any questions don't hesitate to ask.

Thanks,

Evan

Evan Tomek, BES
Environmental Planner *on behalf of*
Union Gas Limited | A Spectra Energy Company
745 Richmond Street | Chatham, ON N7M 5J5
Tel: 519.436.2460 ext 5236904
Cell: 226.229.9598
email: etomek@uniongas.com





uniongas

A Spectra Energy Company

November 23, 2015 (VIA EMAIL)

Joseph Muller, Heritage Planner
Ministry of Tourism, Culture and Sport
Culture Services Unit
Programs and Services Branch
401 Bay Street, Suite 1700
Toronto, ON M7A 0A7
Email: Joseph.Muller@Ontario.ca

RE: Kettle Point / Lambton Shores Natural Gas Pipeline Project

Dear Mr. Muller,

Thank you for your review of the report entitled, *Kettle Point / Lambton Shores Natural Gas Pipeline Project Environmental Protection Plan, May 2015*, and subsequent letter dated August 6, 2015. We appreciate you taking the time to review the report and provide important feedback.

Union Gas Limited (Union) retained the services of D.R. Poulton & Associates to complete a Stage 1 and 2 Archaeological Assessment of the proposed pipeline project area to identify potential impacts to archaeological resources. D.R. Poulton & Associates requested archaeological information from the Chippewas of Kettle and Stony Point First Nation (CKSPFN) during June 2015 and an opportunity to meet and tour the proposed pipeline route on June 26, 2015. Members of CKSPFN declined this opportunity however; archaeological monitors from CKSPFN, Delaware Nation at Moraviantown, and Walpole Island First Nation were present for a Stage 2 archaeological survey on October 26, 2015. Currently, the Stage 2 archaeological survey of the proposed pipeline route has been completed with no sites discovered. The Stage 1 and 2 Archaeological Assessment report is being finalized for submission to the Ministry.

Union retained the services of Stantec Consulting Ltd. (Stantec) to identify potential built heritage and cultural heritage landscapes in the project area. Stantec consulted the Ontario Heritage Trust, and worked with CKSPFN to identify such features and found no concerns. Stantec had also previously consulted the Municipality of Lambton Shores and confirmed that no protected resources are situated within the vicinity of the proposed pipeline. Currently, the *Overview of Heritage Resources* report is being finalized for submission to the Ministry and the Ministry's *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes* has been completed.

Thank you again for your time and we will notify you of the submission of the aforementioned reports. If you have any questions do not hesitate to ask.

Yours Truly,

Evan Tomek
Environmental Planner
Union Gas Limited
Tel: 519.436.2460 ext 5236904
Email: etomek@uniongas.com

Kettle Point Lambton Shores Landowner Listing

Legal Description: PT LT 21 CON 10 BOSANQUET AS IN L740835; LAMBTON SHORES	Owner: Jack Van Geel	PIN: 43035-0061(LT)	SIZE: 15m x 25m
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UNION GAS LIMITED

MILVERTON ROSTOCK WARTBURG PROJECT

Contents

PROJECT SUMMARY	2
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Schedule 1	Map of Proposed Facilities
Schedule 2	Customer Attachment Forecast
Schedule 3	Letter of Support
Schedule 4	Schematic of Proposed Project
Schedule 5a	Capital Costs for first year
Schedule 5b	Capital Costs for first 10 years
Schedule 6	Project DCF Analysis
Schedule 7	DCF Analysis & Parameters
Schedule 8	Design and Pipeline Specifications
Schedule 9	Union's Standard Construction Methods
Schedule 10	Proposed Construction Schedule
Schedule 11	Environmental Protection Plan Update
Schedule 12	Land Requirements Summary

PROJECT SUMMARY

1. This evidence will update the evidence filed by Union at Exhibit A, Tab 2, Section B of the EB-2015-0179 proceeding.
2. Municipal Officials, Residents, and Business Owners in the Township of Perth East which includes the Town of Milverton and surrounding area [“Project Area”], in the County of Perth, have requested natural gas service from Union Gas Limited [“Union”].
3. In order to meet the demands for natural gas in this area, Union is requesting pursuant to Section 90 (1) of the Ontario Energy Board Act, approval from the Ontario Energy Board [“OEB”] for Leave to Construct pipelines in the Townships of Perth South and Perth East [“Project”]. Union is requesting also an order from the OEB pursuant to section 36 (1), as described in earlier sections of this evidence.
4. A map showing the Proposed Facilities from a starting point on Union’s Goderich system to the town of Milverton and surrounding area can be found at Schedule 1.
5. Additionally, Union is also planning to develop a local distribution network which will service approximately 185 customers in the first year of the Project. These customers are not known at the time of the filing.
6. Union currently holds the Certificate of Public Convenience and Necessity (EB-2003-0055) and Franchise Agreement (RP-2003-0043/EB-2003-0054), for the County of Perth. Union currently holds the Certificate of Public Convenience and Necessity and Franchise Agreement (EB-2003-0054, EB-2003-0055), for the Municipality of Perth South. Union currently holds the Certificate of Public Convenience and Necessity and Franchise Agreement (EB-2003-0050, EB-2003-0051), for the Municipality of Perth East.

7. The route of the Proposed Facilities was selected in order to optimize economic benefits and social features while minimizing environmental impacts.
8. If the Applications are approved, Union forecasts that 739 customers in the Project Area will have natural gas service by year 10 of the Project.
9. The total capital cost of the Proposed Facilities for the first 10 years of the Project is \$5,976,289. These costs include pipeline costs, station costs, and the cost to serve customers.
10. The Project has a net present value ["NPV"] of \$73,000 and a profitability index ["PI"] of 1.01.
11. The Municipality has agreed to make a financial contribution to the Project of \$41,000 per year for 10 years.
12. An Environmental Protection Plan ["EPP"] for the Project was prepared by Union's Environmental Planning Department in 2015. Union's standard construction procedures, combined with the appropriate supplemental mitigation measures recommended in the EPP, will be employed to address environmental and public concerns. An update to the original EPP was prepared in 2017 and can be found at Schedule 11.
13. Construction of the Proposed Facilities for the Project is expected to begin in the summer of 2017 with an in serve date of December 2017. Services will be constructed for the first 10 years of the project.
14. The pipeline and station facilities have been optimized to meet the forecast future growth proposed in the Milverton area.
15. No provincial grants or aids to construct are required for the Project.

MARKET PROFILE

Community Profile

16. The Project Area includes the communities of Milverton, Rostock, and Wartburg as well as the residents and businesses between Sebringville and Milverton.
17. The community of Milverton is located in south-western Ontario, in the County of Perth, approximately 27 kilometres north of the City of Stratford and 43 kilometres west of Kitchener-Waterloo. According to the 2011 census, Milverton has a population of 1,519.
18. Potential customers include; residential customers, retail customers, industrial manufacturing facilities and support industries for the surrounding agricultural community.
19. In 2015, there were a total of 555 existing residential dwellings, 55 existing multi-family residential units and 65 commercial establishments in Milverton which could potentially be served with natural gas. According to the approved municipal plan for Milverton, there are 4 approved subdivision plans totalling 206 lots available for residential use and 26 industrial properties zoned for new industrial use. In 2016, there are two residential subdivisions under development. Along the pipeline between Sebringville and Milverton there are an estimated 28 residential dwellings and 15 commercial establishments.
20. Rostock and Wartburg are small communities located between Sebringville and Milverton. Each community is located on Perth Rd 135 approximately 2 km away from the high pressure pipeline that is proposed to service Milverton.
21. Rostock and Wartburg are residential communities surrounded by agricultural lands.
22. There are currently a total of 127 existing residential dwellings and 16 commercial establishments in Rostock and Wartburg.
23. In the Project Area, there are currently a total of 710 existing residential dwellings, 55 multi-

family residential units, and 96 commercial establishments which could potentially be served with natural gas.

Residential and Commercial Surveys

24. To update the telephone survey that was completed in 2015 a new survey was completed for the Project Area in 2017. The survey informed residents and businesses about the Project, estimates of the cost to convert to natural gas, and information regarding a surcharge to contribute towards the cost of the Project. The survey also requested information pertaining to dwelling characteristics, use of dwelling, current fuel type and interest in converting to natural gas-fuelled appliances.
25. Of the 961 potential residential and commercial customers in the Project Area, 245 have completed the telephone survey, representing a 28% response rate.

Customer Attachment Forecast

26. Union is forecasting a total of 525 existing residential, 41 existing multi-family residential, 100 new residential, 66 existing medium and small commercial, 6 existing large commercial, and 1 existing seasonal customers will be attached by the tenth year of the Project as outlined in the customer attachment forecast in Schedule 2.
27. For the Top 3 box scores (extremely likely, very likely, and likely to convert), the results of the telephone survey described above indicate that 74% of the people surveyed are interested in obtaining natural gas service. The telephone survey provided residents information about the system expansion surcharge.
28. Based on discussions with the Milverton Business Association, Union has assumed 100% of the large commercial and seasonal customers will attach.

29. Union asked participants of the survey, who were interested in converting, the timing of when they would attach, and 96% indicated they would do so in the first three years. Union has taken a conservative approach and have spread the attachments over ten years, which is reflected in Schedule 2.
30. Union has reviewed the approved municipal plan and had discussions with municipal officials related to new residential attachments in the Project Area. According to municipal officials there is activity in two of the four approved subdivisions identified above in the Community of Milverton.
31. Union has received support from the Township of Perth East, Knollcrest Lodge (nursing home), the Avon Maitland District School Board and the Milverton Business Association. Letters of support for the Project are included in Schedule 3.

PROPOSED FACILITIES

32. The pipeline will connect to the Goderich lateral in the village of Sebringville. The NPS 4 steel pipeline will go north within the road allowance of County of Perth Road and Perth East Township Road 130 for approximately 17 kilometres. The pipeline will travel northwest approximately 4 kilometres within the road allowance of County Road 119 and 131 to the Community of Milverton. At the south end of Milverton there will be a Distribution Regulating station installed to reduce the pressure of the pipeline. Distribution Regulating stations will be installed to reduce pressures of the pipelines to Rostock and Wartburg. A schematic drawing showing the Project is provided in Schedule 4.
33. The pipelines identified above have been optimized to meet the forecast future growth in the Project Area.
34. From the three Distribution stations, which are proposed to service Rostock, Wartburg, and Milverton, local distribution networks will be constructed to service residents in the three areas.

35. Union has explored a CNG supply model to service Milverton which Union filed in response to Exhibit B.FRPO.1 of the EB-2015-0179 proceeding.
36. In the response to this IR, Union estimated the capital costs for a CNG alternative for Milverton only, excluding Wartburg and Rostock, exceeded the cost of a traditional pipeline supplied project by \$4.9 million. In addition to the higher capital costs, the annual operating costs for the CNG alternative are higher by over \$400 per year per attached customer compared to a traditional pipeline. As a result, Union is proceeding with a traditional pipeline to service the communities of Milverton, Rostock, and Wartburg.

PROJECT COSTS

37. The total estimated cost for the Proposed Project is \$5,976,289 for the first 10 years of the Project. This cost includes all pipeline costs of \$4,686,995 and the cost of services of \$1,289,294 for the first 10 years of the Project.
38. The estimated first year capital costs for the construction of the Proposed Facilities including service costs are provided in Schedule 5a. The estimated costs cover all costs related to materials, construction and labour required to construct distribution mains, and regulating stations. This figure also includes estimated land costs and environmental costs.
39. A year by year breakdown of the proposed capital costs of the Project for the first 10 years of the Project can be found at Schedule 5b.

ECONOMIC FEASIBILITY

40. The Proposed Facilities are required to expand natural gas distribution to the Project Area.
41. A standalone Discounted Cash Flow (“DCF”) analysis was completed for the proposed expansion. Union has employed an economic feasibility test consistent with the Board’s

recommendations in the E.B.O. 188 Report on Natural Gas System Expansion.

42. The DCF for the Project Area can be found at Schedule 6. This Schedule indicates a Net Present Value (“NPV”) of \$73,000 and Profitability Index (“PI”) of 1.01.
43. The DCF is based on capital of \$5,976,289. Capital used in the DCF can be found in Schedule 5a and 5b.
44. The DCF includes the collection of the System Expansion Surcharge (“SES”) at a rate of \$0.23 per m³. The SES term will have a termination date as of the end of the calendar year (Dec 31 2032); approximately 15 years and 1 month from the forecast in-service date of Dec 1 2017.
45. The municipal financial contribution to the project is \$41,000 per year for 10 years. Schedule 3 provides the endorsement form the council of the Township of Perth East for the financial contribution towards the Project
46. The project economics include a cost of \$126,500 (system advancement cost). This is the NPV of the cost for the change in timing of the reinforcement costs of the upstream system supplying the area (Forest Hensal Goderich system). Specifically the advancement cost recognizes an estimate of a reinforcement cost of \$ 1,871,400 to occur in year 2020 as compared to the need for the reinforcement in 2022 without the demands from the Project Area.
47. Schedule 7 provides the key inputs, parameters and assumptions used in completing the DCF analysis.
48. No provincial grants or aids to construct will be required for this Project.

DESIGN AND CONSTRUCTION

Design and Pipe Specifications

49. The design and pipe specifications are outlined in Schedule 8. 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.
50. The Ontario regulations include a classification system on land use and population density to determine the appropriate design factors. A class location unit is defined as the area that extends 200 metres on either side of the centreline of any continuous 1.6 kilometre length of pipeline.
51. Class Location Designations will be in accordance with Table 4.1 of CSA Z662-15.
52. Based on preliminary analysis the existing class location designations along the steel pipeline are Class 1 and 2 and could be as high as 3. The steel pipeline has been designed with a standard wall thickness that exceeds the requirements of *CSA Z662-15*. The proposed steel pipeline will be designed for Class 3 location.
53. The steel pipe will be manufactured by the electric resistance welding or submerged arc weld process in accordance with the *Canadian Standards Association Z245.1-15 Steel Pipe*. The pipe specifications are designed to provide the maximum operating pressure of 3450 kPa. The steel pipeline will be tested in accordance with the requirements of the Ontario Regulation 210/01.
54. For the steel pipe, the hoop stress at maximum operation pressure, expressed as a percentage of the specified minimum yield strength ["SMYS"], is as follows:

Pipe	Wall Thickness [mm]	Grade [MPa]	% SMYS
NPS 4	4.8	290	14.2

55. The steel pipeline design is in accordance with the *Technical Safety and Standards Authority Guidelines for locating New Oil & Gas Facilities*. Since the design hoop stress is less than 40% of the Specified Minimum Yield Strength (“SMYS”), the minimum setback distances required by the guidelines do not apply.
56. All polyethylene pipe and fittings will be manufactured and certified in accordance with the *Canadian Standards Association B137.4-13 Polyethylene (PE) Piping systems for Gas Services*. The pipe specifications are designed to provide the maximum operating pressure of 550 kPa. The pipeline will be tested in accordance with the requirements of the Ontario Regulation 210/01.
57. The minimum depth of cover to the top of the pipe and pipe appurtenances will be in accordance with the requirements of *Clause 12.4.7 and 12.4.8 of the CSA Z662-15* for polyethylene piping and steel piping.

Construction Procedures and Project Schedule

58. The Proposed Facilities will be constructed using Union's standard practices and procedures and will be in compliance with the mitigation measures identified in the Environmental Protection Plan ["EPP"]. Schedule 9 provides a summary of Union's standard construction methods. Union's construction procedures are continually updated and refined to minimize potential impacts to the lands and the public.
59. Material is readily available for the Project and Union foresees no problem in obtaining a contractor to complete the proposed construction. The EPP will be provided to the contractor.
60. Schedule 10 provides the proposed construction schedule for the Project. Construction of the Proposed Facilities is expected to begin in summer of 2017 with an in service date of December 2017. Services will be constructed for the first 10 years of the project.

61. Approvals are pending from the County of Perth, Upper Thames and Grand River Conservation Authorities, Ministry of Transportation, Goderich Exeter Railway, and the Township of Perth East (Milverton, Rostock, and Wartburg).

ENVIRONMENTAL MATTERS

62. The original EPP for the proposed pipeline was prepared by Union's Environmental Planning Department in 2015 and was filed with the Board as Exhibit A, Tab 2, Section B, Schedule 11 as part of the EB-2015-0179 proceeding. The EPP was prepared to meet the intent of the Board's document *"Environmental Guidelines for Locating, Constructing and Operating Hydrocarbon Pipelines in Ontario"* [2011]. An update to the original EPP was prepared in 2017 in anticipation of the Project being constructed in 2017 and can be found at Schedule 11.
63. The objectives of the EPP are to:
- a) document existing environmental features;
 - b) identify agency, First Nations, Métis Nation of Ontario and public concerns;
 - c) identify potential environmental impacts as a result of construction;
 - d) present mitigation techniques to minimize environmental impacts; and
 - e) provide pipeline contractors and environmental inspectors involved in the construction of the pipeline with general and site-specific guidelines for environmental protection that supplement Union's construction specifications.
64. The original EPP was prepared before the scope of the Project was finalized. As such, some areas shown in the original EPP may not be included in the Project.

65. All pipelines will be constructed in the manner recommended and described in the Board document *"Environmental Guidelines for Locating, Constructing and Operating Hydrocarbon Pipelines in Ontario"*.
66. A copy of the original EPP has been submitted to the Ontario Pipeline Coordinating Committee ("OPCC"), local municipalities, government agencies, First Nations and the Métis Nation of Ontario. A summary of comments and Union's response can be found in the EPP update.
67. There are a number of watercourse crossings associated with this Project and a final count will be confirmed with the Grand River and Upper Thames River Conservation Authorities. Union will follow all permit conditions from the Regulating Agencies.
68. When the Project is constructed, the most up-to-date construction specifications will be followed.
69. Union will ensure that the recommendations in the EPP, commitments and the conditions of approval are followed. An environmental inspector will be assigned to the Project to ensure that all activities comply with all of the Board's conditions of approval.
70. The results of the EPP and update indicate that the environmental and socio-economic effects associated with construction of the Project are generally short-term in nature and minimal. There are no significant cumulative effects as a result of this pipeline construction.

LAND MATTERS

71. The Proposed Facilities will be located within road allowances.
72. Union has been advised by the County of Perth that they will be contacting the landowners along the current travelled road and will be acquiring any necessary land right to incorporate the

travelled road within the actual road allowance, to ensure that the Proposed Pipeline is located within road allowance.

73. A Distribution Station in Milverton will be required. Based on preliminary discussions Union does not anticipate any issues obtaining the necessary land rights required for the station. Distribution Stations will also be required for Rostock and Wartburg, these stations will be installed within road allowance and no permanent land rights are required.
74. A table summarizing all the land requirements can be found in Schedule 12.

INDIGENOUS AND MÉTIS CONSULTATION

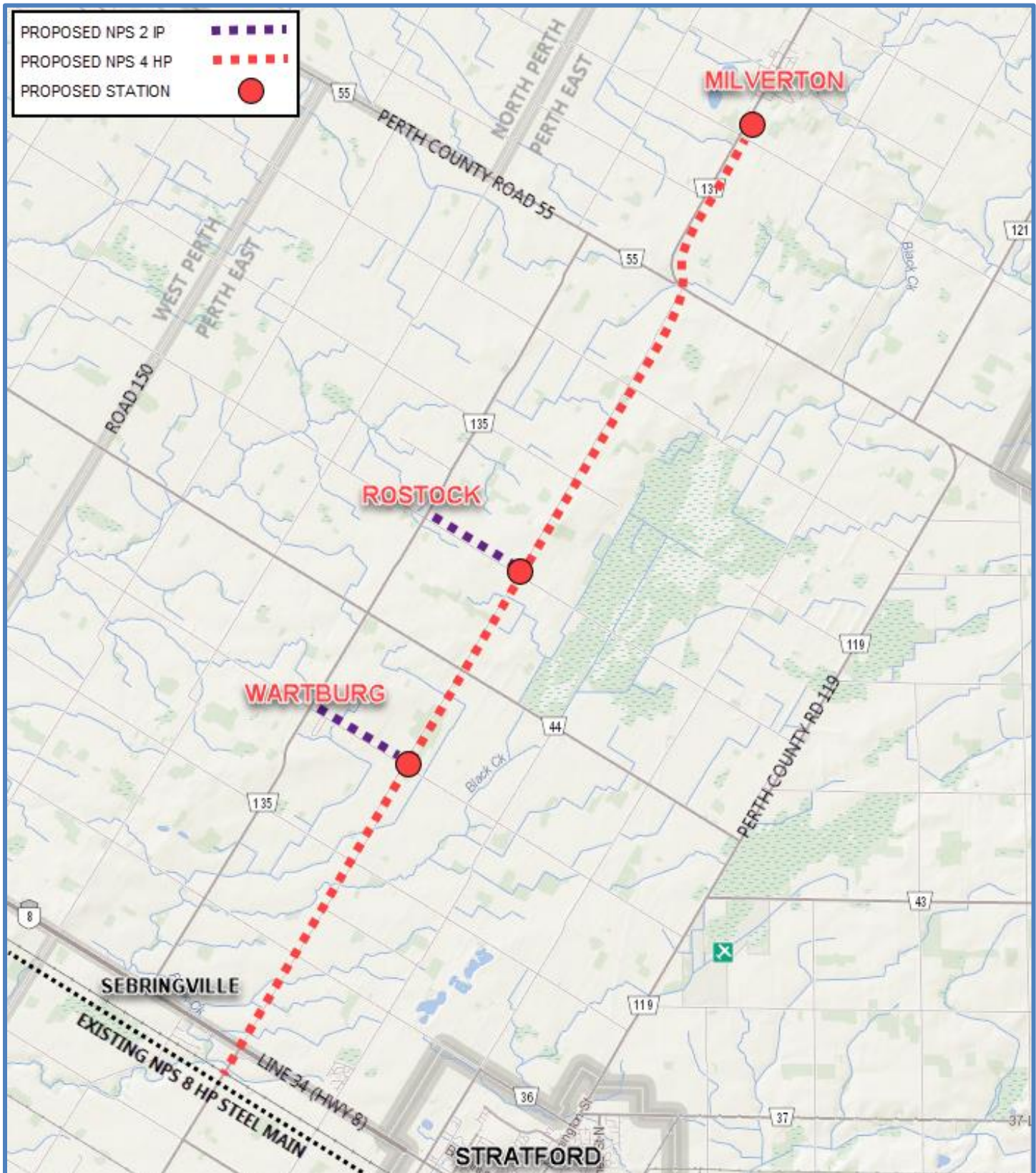
75. Union has a long standing practice of consulting with First Nations and Métis, and has programs in place whereby Union works with them to ensure they are aware of Union's projects and have the opportunity to participate in both the planning and construction phases of the Project.
76. Union has an extensive data base and knowledge of First Nations and Métis organizations in Ontario and consults with the Tribal organizations and the data bases of the Ministry of Natural Resources, Ministry of Aboriginal Affairs and Indigenous and Northern Affairs Canada to ensure consultation is carried out with the most appropriate groups.
77. Union has signed a General Relationship Agreement with the Métis Nation of Ontario which describes Union's commitments to the Métis when planning and constructing pipeline projects.
78. The following First Nations and Métis were notified by email/letter regarding the Project. The email/letters were sent out on May 5 , 2015

Chief Ava Hill	Six Nations of the Grand First Nations
Lonny Bomberry	Director of Lands Resource and Consultation
Chief Bryan LaForme	Mississaugas of New Credit First Nation

Mark LaForme	Director of Lands Resource and Consultation
Chief Chris Plain	Aamjiwnaang First Nation
Sharilyn Johnston	Environmental Coordinator Aamjiwnaang First Nation
Chief Dan Miskokomon	Walpole Island First Nation
Dean Jacobs	Walpole Island First Nation
Chief Joe Miskokomon	Chippewa of the Thames First Nation
Rolanda Elijah	Chippewa of the Thames First Nation
Chief Louise Hillier	Caldwell First Nation
Aly Alibhai	Director of Lands Resources and Consultation Métis Nation of Ontario

79. Since the information was sent out, Union received only one response from the Chippewa of the Thames First Nation that this project was not in their traditional territory and they did not need to be consulted further.
80. Union will continue to meet and consult with the First Nations and the Métis organizations noted above if questions arise regarding this project.
81. During construction, Union has inspectors in the field who are available to First Nation's and Métis Nation of Ontario as a primary contact to discuss and review any issues that may arise during construction.
82. When Union completes the necessary archaeological assessments for the Project Union will consult with and provide the result of the surveys to any First Nations or Métis upon their request.

MILVERTON, ROSTOCK & WARTBURG - Community Expansion Key Plan



Milverton Rostock Wartburg Attachment Forecast

Classification	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total	Ultimate Potential	Total Attachments % Potential
Residential Conversion	141	126	47	34	27	33	28	33	29	27	525	710	74%
Residential New	10	10	10	10	10	10	10	10	10	10	100	100	100%
Residential Multi Family	10	10	4	3	2	3	2	3	2	2	41	55	75%
Small Commercial	13	12	4	3	2	3	3	3	3	2	48	65	74%
Medium Commercial	5	4	2	1	1	1	1	1	1	1	18	24	75%
Large Commercial	5	1	0	0	0	0	0	0	0	0	6	6	100%
Seasonal (Grain Dryer)	1	0	0	0	0	0	0	0	0	0	1	1	100%
Total	185	163	67	51	42	50	44	50	45	42	739	961	77%



Dear James Whittaker, Union Gas

Re: OEB application EB-2015-0179

We understand that Union Gas will be filing an updated proposal with the Ontario Energy Board in the - spring seeking approval to provide service to the community of Milverton, Township of Perth East, County of Perth.

The understanding of the Milverton Business Association is that the Union Gas application will include a proposal to apply a surcharge to the standard natural gas rate for a period of 15 years for the Milverton project. The extension of natural gas to our community will provide economic development opportunities and cost savings for the members of the MBA.

We are writing this letter to confirm that the MBA has reviewed key concepts that Union Gas expects to include in the filing with the Ontario Energy Board, and that we support those concepts summarized below:

- The application of an additional temporary volumetric rate which would be applied as an additional line item to the bills of customers who connect to the system installed as part of these projects for a period of 15 years.
- Agreement by the municipality to provide a voluntary contribution towards the project economics

We believe that the public benefits of extending natural gas infrastructure to additional communities in Ontario should be a key consideration in addressing Union's proposal. These benefits include the annual energy savings our members would experience, reduced costs for our existing businesses, and remove a local economic barrier for our community.

For these reasons we fully support the concepts that Union Gas will propose in their application.

A handwritten signature in dark ink, appearing to read "J Matheson".

Jeremy Matheson
President
Milverton Business Association

March 3, 2017

James Whittaker,
Manager, Community Expansion
Union Gas Limited
109 Commissioners Rd West
London, Ontario
N6A 4P1

RE: Filling Application Number EB-2015-0179

Knollcrest Lodge Long-Term Care Home, in Milverton, was incorporated in 1972 as a charitable, non-profit organization. Over 44 years, we have maintained a reputation for providing a high Quality of Care and Quality of Life to our Residents and community Clients. In rural areas, non-profits such as Knollcrest Lodge must often take the lead in developing local services, and are often the only organizations capable of doing this, with the skills, knowledge, resources, volunteer base, and experienced staff. We continue to implement progressive Long-Term Care and Community Wellness programs, and meet the changing needs of this community. We have over 90 professional, highly-trained staff, and 200+ volunteers. We are the largest employer in Perth East.

We have an extensive “inventory” of services and programs that we deliver to the public every day in three main areas – Long-Term Care, Seniors Housing, and Community Care and Wellness. We have grown our campus to include a Physiotherapy Service, the Milverton & District Medical Centre, a Midwives Clinic, Medical Lab services, a Legal service, a Dental Clinic, and a Mother and Young Child clinic. We have established strategic partnerships in our programs and services to ensure longevity and community focus, such as the Ministry of Health, the South West LHIN, the Municipality and Perth County.

However, as an independent charitable organization facing almost static funding, our cash flow is an ongoing concern. Since our redevelopment in 2008, Knollcrest has been servicing a \$4 million mortgage; this means that an extra \$22,000 per month above and beyond our operating requirements must be found in the budget. Our operation – the services we provide and the jobs they represent – is increasingly at risk from financial pressures. **For your information, access to Natural Gas would save Knollcrest Lodge approximately \$35,000 per year, since we currently use propane. That \$35,000 savings would certainly make a difference in our ability to provide the required quality care, and, indeed, have a significant impact on this organization’s viability in the long term.**

We are dismayed and frustrated that this project is taking so long to get started. **We would appreciate every effort by the Ontario Energy Board to expedite the process. We strongly support the submission made by Union Gas on this topic. From our perspective, there are too many factors related to both community services and employment to sustain further delay.**

Louise Hasenpflug, Board Chair

Susan Rae, CEO



Ted Doherty, Director of Education and Secretary of the Board

Filed: 2017-03-31
EB-2015-0179
Avon Maitland District School Board
Education Centre
62 Chalk St. N
Seaford, ON N0K 1S0
Telephone: 519 527 9111
1 800 592 5437
Fax: 519 527 0222
info@ed.amdsb.ca
www.yourschools.ca
Exhibit A
Tab 2
Section B
Schedule 3
Page 4 of 7
UPDATED

March 14, 2016

Union Gas Ltd.
P.O. Box 5353, Station A
London, ON N6A 4P1

Attention: James Whittaker, Manager Community Expansion, Union Gas Ltd.

RE: Natural Gas Service Expansion Application EB-2015-0179

Dear Mr. Whittaker:

Further to a letter written March 24th, 2016 to the attention of Mrs. Leclair of the Ontario Energy Board, the Avon Maitland District School Board would like to express support for expansion of natural gas service to Milverton and 4 other rural under serviced communities. It was our understanding, at the time of our initial communication, that the Ontario Energy Board had placed application EB-2015-0179 on hold so they could undertake a generic review of regulatory, economic, and ratepayer issues regarding projects such as this. Recently, staff at the Avon Maitland DSB, at the request of Union Gas Ltd, supplied technical information regarding two school board facilities within the subject expansion area as part of a feasibility calculation that may result in the project moving forward.

In support of the Municipality of Perth East, and the benefits this project may provide to the Avon Maitland District School Board, we would like to expand on the information for your consideration. The Avon Maitland District School Board has two schools in the potential expansion area. Milverton PS is serviced by bulk propane tanks and Central Perth ES is an electrically heated school, situations which have both economic and operational complications as follows:

- Propane and electricity are simply a more expensive method of heating. We estimate a combined heating cost savings of up to \$60,000/year to operate Milverton PS and Central Perth ES with natural gas compared to heating with propane and electricity respectively.
- During winter weather events that result in deteriorated road conditions and possible road closures, which can be frequent, we are unable to receive propane deliveries which in-turn affects our ability to maintain the integrity and continued operation of the facility.
- In addition, low tank volumes reached during extreme cold or weather events cause gas fired roof top units to fire improperly to the extent that heat exchangers are damaged and require expensive repairs or complete replacement.
- Longevity of multiple HVAC gas fired roof top units can be reduced, in the case of Milverton PS, because of propane use compared to natural gas, resulting in ongoing increased capital costs for the Board, which could be avoided with natural gas.

If any further information or comments would help in this effort please make it known.

Regards,

Randy Wagler
Chair of the Avon Maitland District School Board



Township of Perth East

P.O. Box 455, 25 Mill Street East
Milverton, Ontario N0K 1M0

Phone- (519) 595-2800

Fax- (519) 595-2801

Filed: 2017-03-31

EB-2015-0179

Exhibit A

Tab 2

Section B

Schedule 3

Page 5 of 7

UPDATED

March 13, 2017

James Whittaker, P.Eng
Manager, Community Expansion
Union Gas Limited
109 Commissioners Rd W
London, ON N6A 4P1

Re: Union Gas Proposal – Extension of Service to Milverton, Wartburg, and Rostock

It is the Township of Perth East's understanding that following the second favorable Feasibility Assessment recently conducted in Milverton, Wartburg, Rostock and the surrounding area, that Union Gas will be filing an amended proposal (EB-2015-0179) with the Ontario Energy Board seeking approval to provide service to Milverton, Wartburg, Rostock and the surrounding area, which is located in the Township of Perth East. Our understanding is that the Union Gas application EB-2015-0179 will be updated to reflect the guidelines that apply to extending natural gas service to new communities that the Ontario Energy Board recently endorsed in its Generic Hearing EB 2016-004.

The purpose of this letter is to confirm that the Township of Perth East has reviewed key concepts that Union Gas expects to include in the filing with the Ontario Energy Board, and that elected municipal representatives support those concepts, which are summarized below:

- The application of an additional temporary volumetric rate which would be applied by Union Gas as an additional line item to bills of customers who connect to the system installed as part of these projects for a period of 15 years, and which amounts to something in the range of \$500 per year (23 cents per m³) for an average residential customer.
- Agreement by the municipality to provide a voluntary contribution towards the project economics at an amount of \$41,000 per year for 10 years.

Our municipal leaders believe that the public benefits of extending natural gas infrastructure to Milverton should be a key consideration in the OEB addressing Union's application. These benefits include the annual energy savings our constituents would experience, reduced costs for our existing businesses, schools, senior's residence, and remove a local economic barrier for our community. Completion of this undertaking will result in savings conservatively estimated at \$650,000 annually which is significant for a population of only 1,700 within the area to be serviced. We are confident that this will enable growth and development within our community, which has been stalled by the delay in approval of this undertaking.

Integrity

Teamwork

Service

Continuous Improvement

Fiscally Responsible

For these reasons we fully support the Union Gas application as outlined above.

Sincerely,

Original signed by

Glenn Schwendinger
Chief Administrative Officer

cc Theresa Campbell, Municipal Clerk



Township of Perth East

P.O. Box 455, 25 Mill Street
Milverton, Ontario N0K 1M0

Theresa Campbell, CMO, Dipl.M.M.
Municipal Clerk

Phone- (519) 595-2800
Fax- (519) 595-2801

email – tcampbell@pertheast.ca

Filed: 2017-03-31
EB-2015-0179
Exhibit A
Tab 2
Section B
Schedule 3
Page 7 of 7
UPDATED

March 13, 2017

James Whittaker, P.Eng
Manager, Community Expansion
Union Gas Limited
109 Commissioners Rd West
London, ON N6A 4P1

Re: Municipal Contribution - Natural Gas Servicing Project

At their regular meeting held on March 7, 2017, the Council of the Township of Perth East endorsed the following resolution;

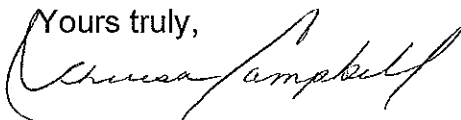
That the Council of the Township of Perth East receive the report entitled Municipal Contribution - Natural Gas Servicing Project, dated March 7, 2017 prepared by the CAO for information;

AND THAT the Township of Perth East provided a letter of support for the upcoming Union Gas submission to the Ontario Energy Board;

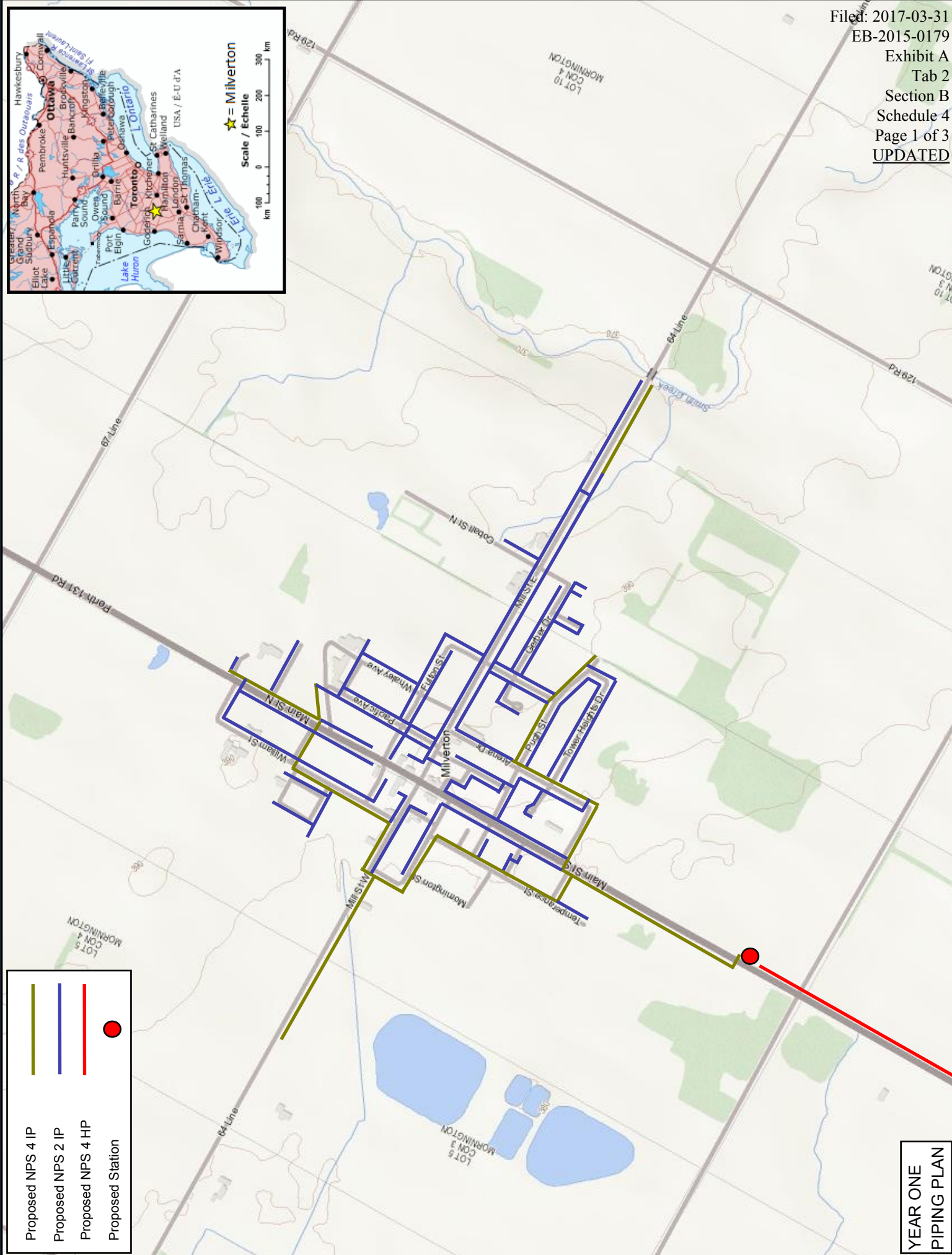
AND THAT the Township of Perth East commits to the Milverton, Wartburg, and Rostock gas servicing project a grant equal to the municipal portion of the projected property taxes from the gas infrastructure installation in the amount of \$25,000 annually for a period of 10 years;

AND THAT the Township of Perth East commits to the Milverton, Wartburg, and Rostock gas servicing project an additional grant of \$16,000 annually for a period of 10 years.

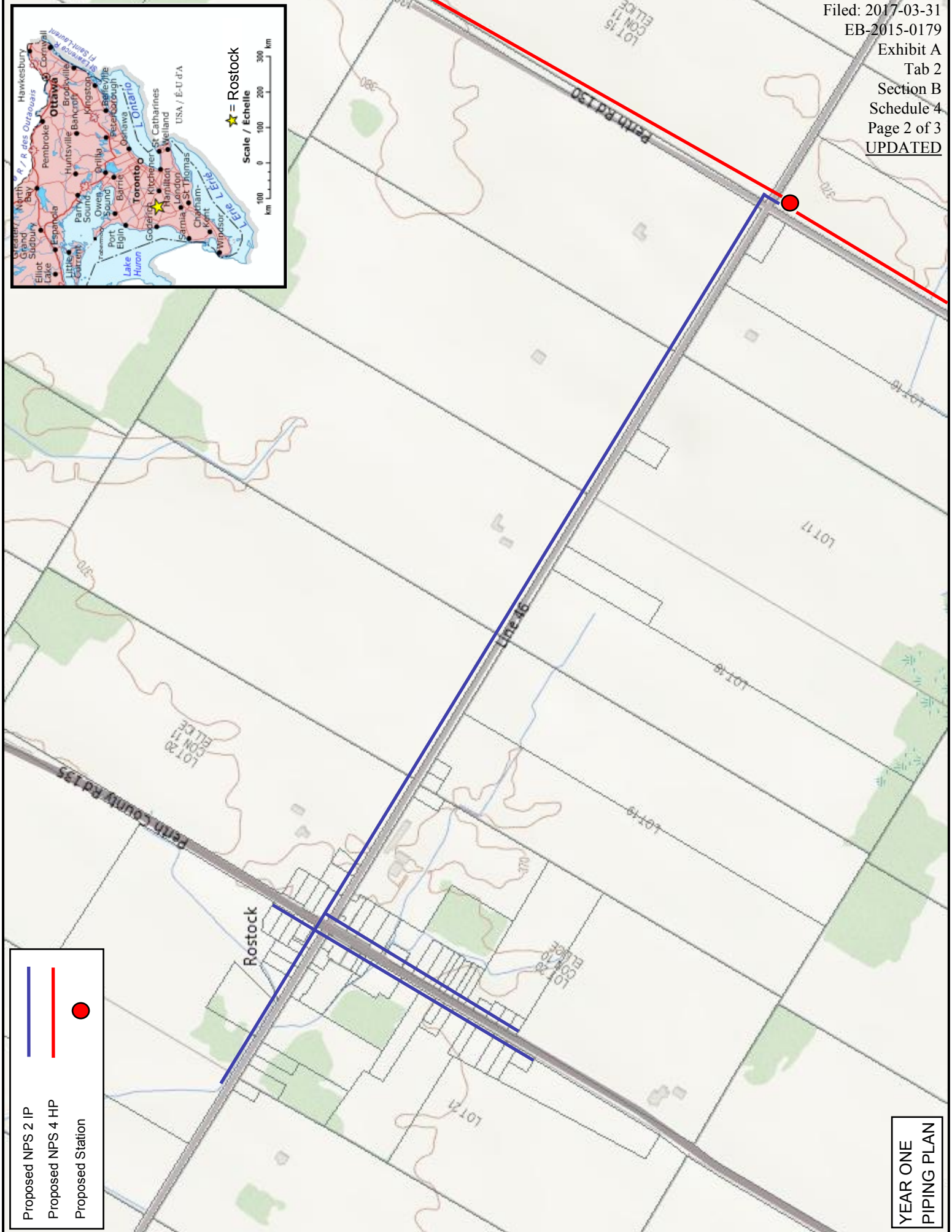
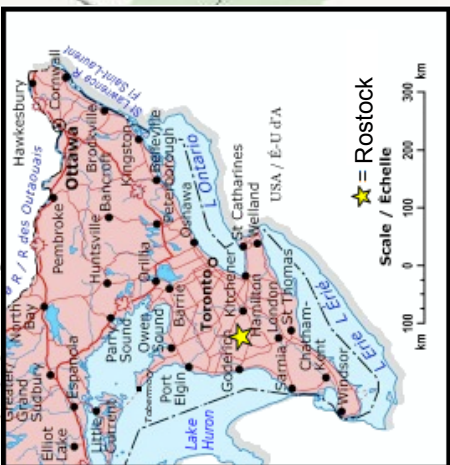
Should you require additional information, please contact Glenn Schwendinger, CAO at gschwendinger@pertheast.ca or 519-595-2800 ext. 232.

Yours truly,

Theresa Campbell
Municipal Clerk

cc. G. Schwendinger, CAO

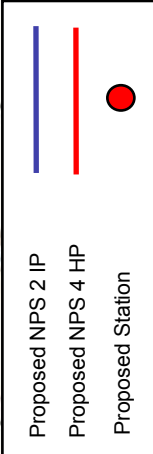
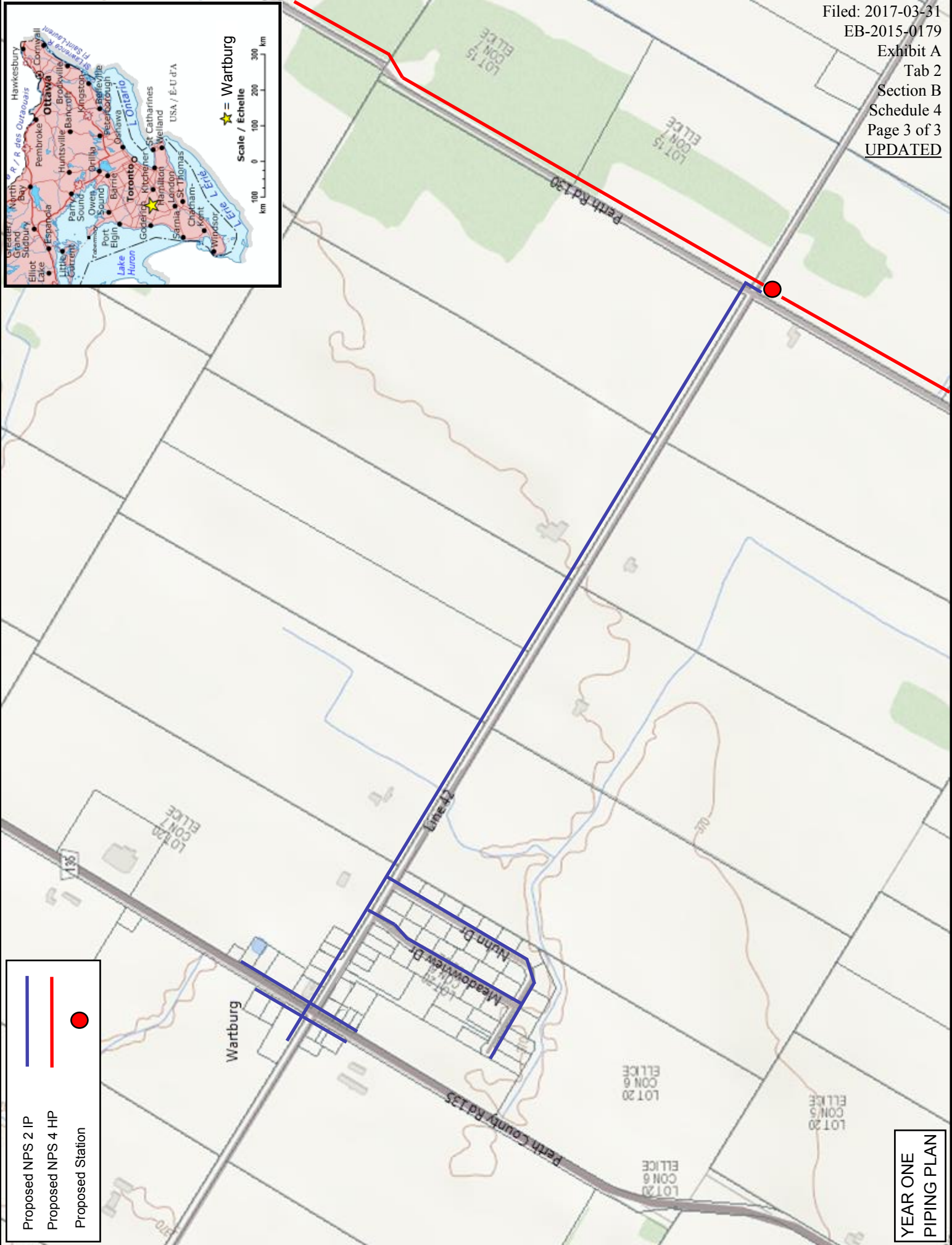
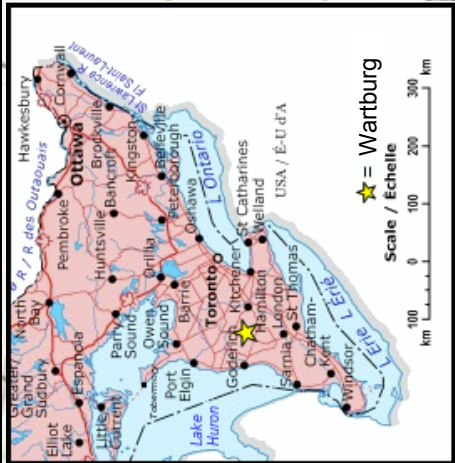


YEAR ONE
PIPING PLAN



- Proposed NPS 2 IP
- Proposed NPS 4 HP
- Proposed Station

YEAR ONE
PIPING PLAN



YEAR ONE
PIPING PLAN

TOTAL ESTIMATED CAPITAL COSTS – YEAR 1

MILVERTON, ROSTOCK, WARTBURG EXPANSION PROJECT

Total Materials	\$702,533	\$702,533
Total Contract Cost	\$2,827,919	\$2,827,919
Total Company Costs	\$81,102	\$81,102
Miscellaneous (XRay, Construction Survey, Lands)	\$458,443	\$458,443
Station Labour and Materials	\$348,703	\$348,703
Contingency	\$196,000	\$196,000
Interest During Construction	\$0	
Service Costs	\$418,556	\$418,556
Total Estimated Capital Costs		\$5,033,256

Milverton, Wartburg, Rostock

Proposed Capital (\$000's)

Pipeline & Station Capital (1)
Service , M&R Installation
Total

	1	2	3	4	5	6	7	8	9	10
Total										
4,687	4,615	8	8	8	8	8	8	8	8	8
1,289	419	271	105	77	63	76	69	76	70	63
5,976	5,033	279	113	85	71	84	77	84	78	71

Milverton, Wartburg, Rostock

<u>Project Year</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
<u>Cash Inflow</u>										
Revenue	41	110	148	168	183	198	213	228	243	257
System Expansion Surcharge (SES)	143	344	422	459	486	514	542	570	598	624
Municipal Financial Support	41	41	41	41	41	41	41	41	41	41
Expenses:										
O & M Expense	(6)	(17)	(24)	(28)	(32)	(36)	(39)	(44)	(48)	(52)
Municipal Tax	(79)	(79)	(79)	(79)	(79)	(79)	(79)	(79)	(79)	(79)
Income Tax	3	(26)	(57)	(73)	(87)	(100)	(113)	(127)	(139)	(152)
Advancement Cost	(127)									
Net Cash Inflow	16	373	452	487	512	537	563	589	616	640
<u>Cash Outflow</u>										
Incremental Capital	5,033	279	113	85	71	84	77	84	78	71
Change in Working Capital	0	1	0	0	0	0	0	0	0	0
Cash Outflow	5,034	280	113	86	71	84	77	84	78	71
<u>Cumulative Net Present Value</u>										
Cash Inflow	16	362	761	1,170	1,580	1,988	2,396	2,802	3,205	3,604
Cash Outflow	5,034	5,300	5,403	5,476	5,535	5,601	5,658	5,717	5,770	5,815
NPV By Year	(5,017)	(4,938)	(4,641)	(4,306)	(3,955)	(3,612)	(3,262)	(2,915)	(2,564)	(2,211)

Project NPV

Profitability Index

By Year PI
 Project PI

0.62

0.56

0.49

0.42

0.35

0.29

0.21

0.14

0.07

0.00

1.01

73

1.01

Milverton, Wartburg, Rostock

Project Year	(\$000's)	11	12	13	14	15	16	17	18	19	20
Cash Inflow											
Revenue		264	264	264	264	264	264	264	264	264	264
System Expansion Surcharge (SES)		637	637	637	637	637	96	-	-	-	-
Municipal Financial Support		-	-	-	-	-	-	-	-	-	-
Expenses:											
O & M Expense		(55)	(56)	(58)	(59)	(61)	(62)	(64)	(65)	(66)	(68)
Municipal Tax		(79)	(79)	(79)	(79)	(79)	(79)	(79)	(79)	(79)	(79)
Income Tax		(148)	(151)	(154)	(156)	(159)	(17)	6	4	2	1
Advancement Cost											
Net Cash Inflow		619	615	611	607	603	201	127	124	121	118
Cash Outflow											
Incremental Capital		-	-	-	-	-	-	-	-	-	-
Change in Working Capital		0	0	0	0	0	0	0	0	0	0
Cash Outflow		0	0	0	0	0	0	0	0	0	0
Cumulative Net Present Value											
Cash Inflow		3,971	4,318	4,646	4,956	5,249	5,342	5,398	5,450	5,499	5,543
Cash Outflow		5,815	5,815	5,815	5,815	5,815	5,816	5,816	5,816	5,816	5,816
NPV By Year		(1,844)	(1,497)	(1,169)	(859)	(566)	(473)	(417)	(365)	(317)	(272)

<u>Profitability Index</u>	By Year PI	Project PI
-----------------------------------	------------	------------

By Year PI	Project PI
2018	2018
2019	2019
2020	2020
2021	2021
2022	2022
2023	2023
2024	2024
2025	2025
2026	2026
2027	2027
2028	2028
2029	2029
2030	2030

Milverton, Wartburg, Rostock (Project Specific DCF Analysis) Stage 1 DCF - Listing of Key Input Parameters, Values and Assumptions (\$000'S)	
Discounting Assumptions Project Time Horizon Discount Rate	40 years commencing at facilities in-service date of 01 Dec 17 Incremental after-tax weighted average cost of capital of 5.10%
Key DCF Input Parameters, Values and Assumptions Net Cash Inflow: Incremental Distribution Revenue: General Service rates System Expansion Surcharge (SES) Municipal Financial Support Term of SES Term of Municipal Financial Support Operating and Maintenance Expense Incremental Tax Expenses: Municipal Tax Income Tax Rate CCA Rates: CCA Classes: Class 51 (Distribution Mains) Class 51 (Distribution Services) Class 51 (Measuring & Regulating Equipment)	Approved per EB-2016-0334 Effective January 1, 2017 \$0.23 / M3 Voluntary Financial Support 15 years from In-service to end of Dec 2032 10 years Estimated incremental cost Estimated incremental cost 26.50% Declining balance depreciation rates by CCA class: 6% 6% 6%
Cash Outflow: Incremental Capital Costs Attributed Change in Working Capital	Refer to Schedule 5 5.0513% applied to O&M

MILVERTON, ROSTOCK, WARTBURG DESIGN AND PIPE SPECIFICATIONS

STEEL AND POLYETHYLENE PIPING

Steel Design Specifications

Design Factor	- 0.8
Design Class Location	- 3
Location Factor (General)	- 0.700
Location Factor (Road)	- 0.625
Location Factor (Rail)	- 0.625
Maximum Operating Pressure	- 3450 kPa
Test Medium	- Air , Nitrogen, or Water
Minimum Test Pressure	- 4830 kPa
Minimum Depth of Cover (General)	- 0.6 m
Minimum Depth of Cover (Road Crossings)	- 0.6 m
Minimum Depth of Cover (Water Crossings)	- 1.2 m
Minimum Depth of Cover (Rail Crossings)	- 2.0 m

Steel Pipe Specifications

Size	- NPS 4
Outside Diameter	- 114.3 mm
Wall Thickness	- 4.8 mm
Grade	- 290 MPa
Type	- Electric Resistance Weld or Submerged Arc Weld
Description	- C.S.A. Standard Z245.1-14
Category	-Cat I, M5C
Coating	-Yellow Jacket, Dual Layer FBE
%SMYS	-14.2%

Polyethylene Pipe Design Specifications

Design Factor	- 0.40
Maximum Operating Pressure	- 550 kPa
Test Medium	- Air , Nitrogen, or Water
Minimum Test Pressure	- 770 kPa
Minimum Depth of Cover (General)	- 0.6 m
Minimum Depth of Cover (Road Crossings)	- 0.6 m
Minimum Depth of Cover (Water Crossings)	- 1.2 m

Polyethylene Pipe Specifications

Size	- NPS 4
SDR	- 11
Description	- C.S.A. Standard B137.4-13
Size	- NPS 2
SDR	- 11
Description	- C.S.A. Standard B137.4-13

GENERAL TECHNIQUES AND METHODS OF CONSTRUCTION

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. *Ontario Traffic Manual – Book 7 – Temporary Conditions* is followed as a minimum requirement for the purpose of traffic control.
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 as approved by the Municipality.

Stringing

7. The pipe is strung adjacent to the running line. 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

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

Burying

9. Pipe may be buried using either the trench method or the trenchless method. 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 trenching machine, plough, or hoe excavator depending upon the ground conditions. Provisions are made to allow residents access to their property, as required. Any drainage tiles that the owner is aware of should be marked and will be spotted. All marked drainage tiles that are cut during the trench excavation are flagged to signify that a repair is required. 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.**Trenchless Method:** Trenchless methods are alternate methods used to install pipelines under railways, roads, sidewalks, trees and lawns. There are two trenchless methods that could be used for the proposed pipeline, depending on the soil conditions, length and size of the installation. These methods are boring (auguring) and directional drilling.

Tie-Ins

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

Cleaning and Testing

11. To complete the construction, the pipeline is cleaned and tested in accordance with Union's specifications.

Restoration

12. The final activity is the restoration. The work area is leveled, the sod is replaced in lawn areas and other grassed areas are re-seeded with topsoil and grass seed. Where required, concrete, asphalt and gravel are replaced to return the areas to as close to the original conditions as possible.

Milverton Expansion Pipeline Construction Schedule

Task Name	2016			2017												2018							
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug
Environmental Assessments and Approvals																							
Engineering																							
Pre-Construction Survey																							
Material Acquisition																							
File Application																							
OEB Approval																							
Construction Survey																							
Construction and Testing																							
Clean-Up																							
In-Service																							

Milverton Natural Gas Pipeline Project

Environmental Protection Plan Update

Introduction

In July of 2015 Union Gas Limited (Union Gas) applied to the Ontario Energy Board (“OEB”) for its Community Expansion Program. In January of 2016 the OEB adjourned Union Gas’s application and initiated a generic hearing to review community expansion projects throughout Ontario. The OEB released its decision on the generic proceeding in November of 2016. After reviewing the November 2016 decision it was necessary for Union Gas to update its evidence to be consistent with the generic decision. The Milverton Natural Gas Pipeline Project (the Project) was one of the projects included in the Community Expansion Program.

Union Gas has been bringing, clean, reliable, and affordable natural gas service for more than a century to over 400 communities across Ontario and as part of its Community Expansion Program, is proposing to bring natural gas service to the community of Milverton.

This document will update the Environmental Protection Plan prepared in May 2015 for the Milverton Pipeline Project filed with the OEB as part of Union Gas’s Community Expansion Program.

Project Description

The Environmental Protection Plan (EPP) described the Project as consisting of approximately 20 kilometres of NPS (Nominal Pipe Size) 4 inch steel piping originating from Sebringville, Ontario traveling northeast along Perth Road 130/East Perth Road 130, west along Perth Road 119 and northeast on Perth Road 131 to the proposed Milverton Distribution Regulation Station in the vicinity of Perth Road 131 and Line 61. The Project was also described as having a NPS 2” and 4” polyethylene system installed within portions of Milverton originating from the Distribution Regulation Station.

The Project will now include providing natural gas service to the communities Rostock and Wartburg. The approximate proposed pipeline lengths are now 20.5 kilometres of NPS 4 inch steel piping, 4.125 kilometres of NPS 4 inch plastic piping, and 22.765 kilometres of NPS 2 inch plastic piping for a total of 47.39 kilometres of new piping. Maps identifying the project location and running line are attached in Appendix A.

Environmental Planning Process

Union Gas initiated the Environmental Assessment (EA) process in May 2015 with the completion of an Environmental Protection Plan (EPP). The EPP was prepared to document a plan for the protection of the environment during construction of the natural gas pipeline, and more specifically:

- Describe the proposed work necessary for the Project;
- Describe the procedures that will be followed during construction of the facilities;

- Identify potential environmental impacts and recommend measures to minimize those impacts, and
- Describe public consultation opportunities.

The EPP was mailed to the Ontario Pipeline Coordinating Committee (OPCC), First Nations, and other relevant agencies for review on June 1st, 2015. Please see Appendix B for a summary of OPCC, First Nations, and agency comments and Union Gas's subsequent response regarding the EPP and the Project in general. There are no outstanding issues from the OPCC review.

Environmental Features Along the Route of the Proposed Pipeline

Archaeology

Union Gas retained the services of Stantec Consulting Ltd. to complete an archaeological assessment for the Project in accordance with the Ministry of Tourism, Culture and Sport (MTCS) guidelines. The entire length of the proposed pipeline was subject to a Stage 1 and 2 archeological assessment and no archaeological sites were discovered. The proposed land for the distribution station has not yet been subject to a Stage 2 survey as the access to the land has not been granted. Approval for the Stage 1 archaeological assessment was received and the Stage 1 Archaeological Assessment Report was entered into the Ontario Public Register of Archaeological Reports on December 11th, 2015. The Stage 2 Archaeological Assessment Report for the pipeline route will be submitted to the MTCS for review in the coming weeks and the proposed land for the distribution station will be surveyed as soon as access is granted.

The routes of the additional pipelines to service the communities of Rostock and Wartburg will also be subject to an archaeological assessment in accordance with MTCS guidelines.

Cultural Heritage

Union Gas retained the services of Stantec Consulting Ltd. to complete an overview of the heritage resources along the proposed pipeline route to ensure built heritage resources and cultural heritage landscapes are not impacted by the Project. The Overview of Cultural Heritage Resources Report concluded that impacts are not anticipated to cultural heritage resources. The MTCS reviewed and accepted this report on February 26th, 2016.

Stantec Consulting Ltd. will also complete an overview of the heritage resources along the pipeline routes that are proposed to service the communities of Rostock and Wartburg.

Environmental Study

Union Gas retained the services of R.J. Burnside & Associates Limited to complete an Environmental Constraints Screening Report for the Project. The report provided a description of the terrestrial and aquatic environments, a list of endangered and threatened species in the vicinity of the proposed pipeline route, and recommended mitigation measures to avoid/minimize impacts to such environments

and species. Union Gas will implement the recommended mitigation measures as well as Union Gas's standard mitigation measures for pipeline construction.

Union Gas and Neegan Burnside Ltd. will review the route of the proposed pipeline again to ensure that there have been no significant changes to the environmental features identified during the original EA.

Summary

This Addendum has been prepared as an update to the original EPP. All of the mitigation measures recommended in the EPP, Stage 1 and 2 Archaeological Assessment Reports, Overview of Cultural Heritage Resources Report, and Environmental Constraints Screening Report will be adhered to during construction. The routes of the proposed pipelines to service Rostock and Wartburg will also be subject to an archaeological assessment, cultural heritage overview, and environmental screening and any new mitigation measures resulting from these studies will be adhered to during construction.

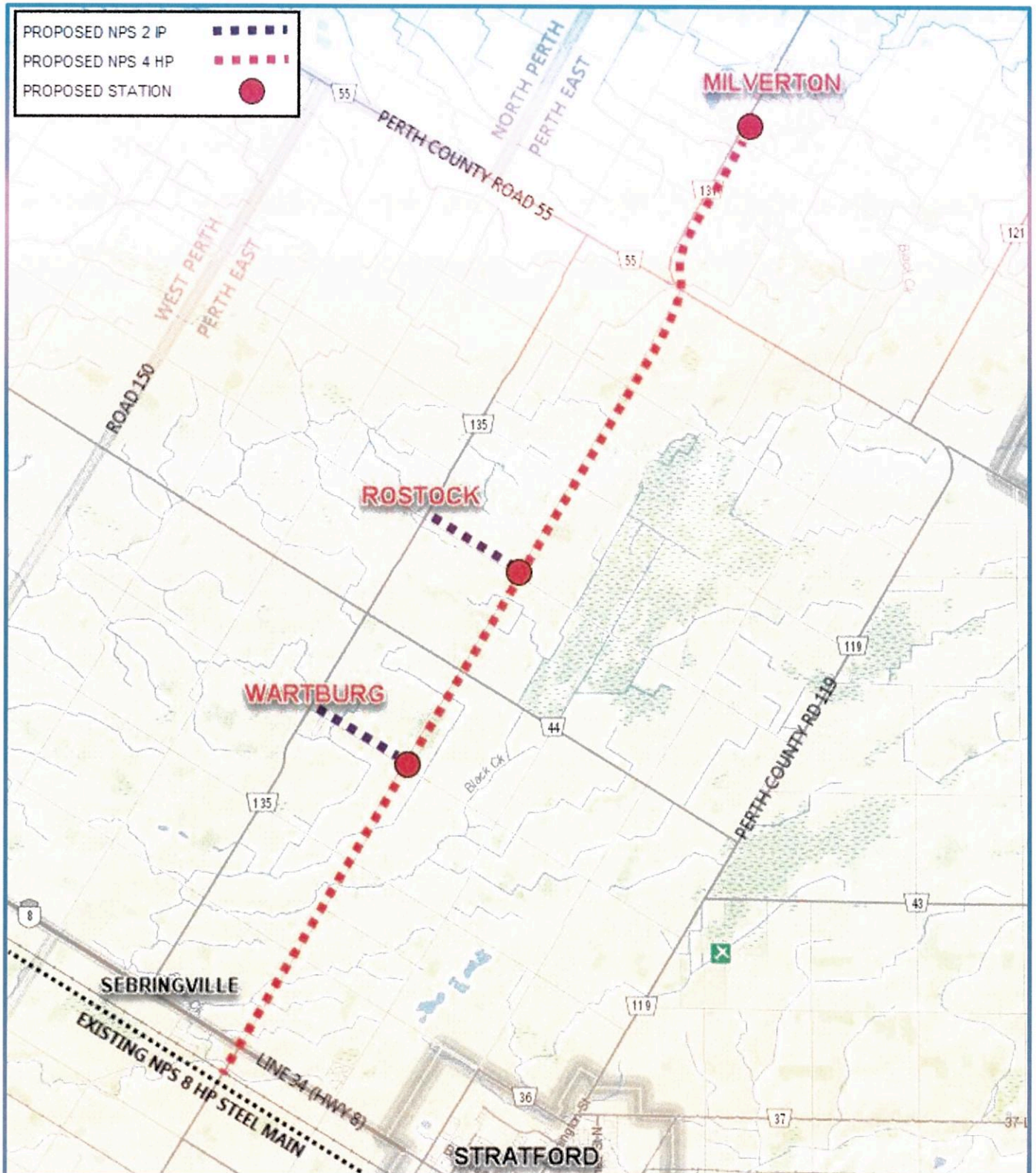
All comments received from the OPCC, First Nations, and other relevant agencies regarding the Project and/or the EPP have been noted and addressed as required.

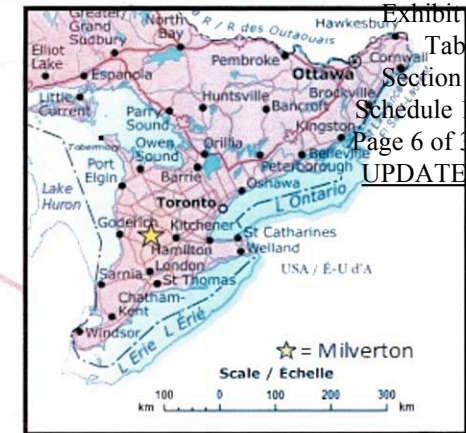
With the implementation of the recommended mitigation measures, and ongoing agency communication, the Milverton Natural Gas Pipeline Project is not anticipated to have any significant adverse environmental or socio-economic impacts.

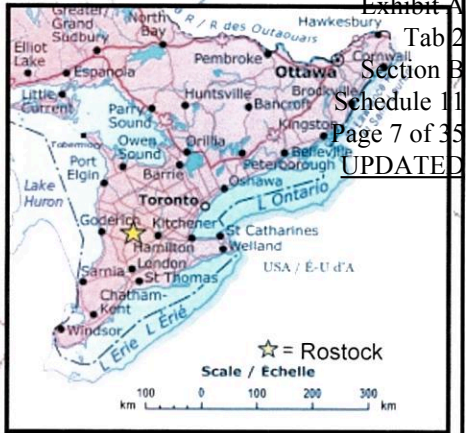
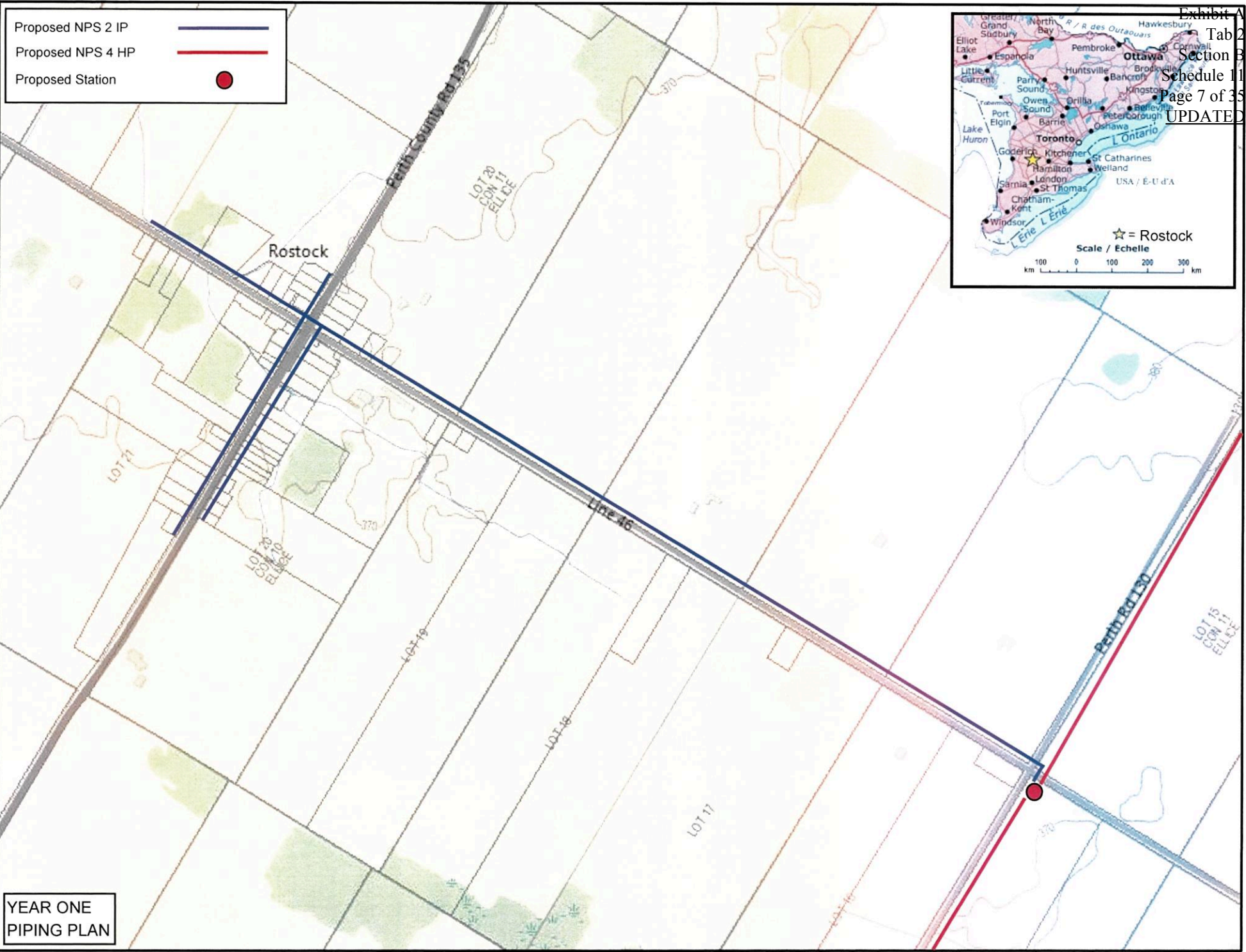
APPENDIX A

PROJECT MAPPING

MILVERTON, ROSTOCK & WARTBURG - Community Expansion Key Plan







YEAR ONE
PIPING PLAN



APPENDIX B

OPCC REVIEW SUMMARY

OPCC Review Summary

Milverton Natural Gas Pipeline Project

AGENCY	COMMENT	RESPONSE
<p>Technical Standards and Safety Authority Email dated July 2, 2015</p>	<p>The design and piping specifications project meet the requirements of O. Reg. 210/01. However, if the project is constructed in the spring of 2016, the new Code Adoption Document (CAD) enforcing the CSA Z662-15 may be in effect at that time.</p> <p>Forwarding the EPP to Mike Davis, our regional manager for his knowledge and/or actions that may be required.</p>	<p>Not Required.</p>
<p>Upper Thames River Conservation Authority Email and letter dated July 9, 2015</p>	<p>Email containing a letter with comments:</p> <p>UTRCA Regulated Areas</p> <ol style="list-style-type: none"> 1. Portions of the study area occur within areas regulated by the UTRCA. We note our mapping indicated two additional watercourses within the UTRCA portion of the study area that do not appear to be denoted on the screening report plans: one watercourse crossing the proposed pipeline route at Line 42 and one crossing at Line 52. <p>Water Quality, Woodlands and Other Natural Heritage Features</p> <ol style="list-style-type: none"> 2. Please refer to the latest (2012) edition of the Upper Thames River Watershed Report Cards for natural heritage information related to the Whirl Creek and Black Creek subwatersheds. <p>Summary</p> <p>We have not received enough information to provide detailed comments regarding the project. However, we appreciate being</p>	<p>Email dated July 9, 2015:</p> <p>Thank you very much for you response and input on our Milverton Pipeline Project. I will work towards adding the two additional crossings our future plan drawings. We will be contacting UTRCA for pre-consultation in support of our future permit application under O. Reg. 157/06.</p> <p>Thank very much for your time spent reviewing and commenting on our report.</p>

	contacted early in the process, are available to meet, and would like to be included in future circulations regarding the project to be able to provide timely comments.	
Township of Perth East Email dated July 10, 2015	Requested an electronic version of the EPP to circulate internally for comments.	Forwarded an electronic copy of the EPP on July 10, 2015.
Township of Perth East Email and letter dated July 23, 2015	<p>Email containing a letter with comments:</p> <p>The comprehensive report generally addresses the necessary aspects of an undertaking such as this and the Township is confident that it deals with environmental issues appropriately.</p> <ol style="list-style-type: none"> 1. The Gies subdivision is only in its draft stages – when/where is the 4” main planned to be installed in this area? If the main is required as part of the initial installation, the 4 inch could be installed along Mill Street East. If the main is to be installed in the future, consideration should be given to having it installed in co-ordination with the development and installation of services of the subdivision, wherever that occurs. 2. If there is potential for disruption of any natural features, the County’s Planning and Development Department shall be contacted. 3. Respective CA’s should be consulted on the project. 4. Any required disruption of trees shall be in compliance with the “County of Perth By-law Number 2927 – Being a By-Law to prohibit or regulate the destruction or injuring of trees, in woodlands and woodlots in the County of Perth”. Questions on this issue should be referred to the County’s Planning and Development Department. 	<p>Sent an email containing a response letter on September 28, 2015:</p> <ol style="list-style-type: none"> 1. Union Gas is planning on installing the 4” PE pipeline within the subdivision as it is constructed. This section of pipeline is not required when Union Gas installs the initial distribution system in Milverton. Union Gas will work with the Township and the developer to determine the location and timing of installation of the pipeline within the subdivision. 2. All required environmental permits and approvals will be obtained prior to the initiation of works, including those issued by the County of Perth. The County’s Planning and Development Department shall be consulted for permitting requirements if there is the potential for disruption of the natural feature identified in Section 3.2 of the Environmental Screening Report. 3. Respective CA’s (Maitland Valley Conservation Authority, Grand River Conservation Authority and Upper Thames River Conservation Authority) have received copies of the Environmental Protection Plan and Environmental Screening Report. All required permits and approvals for the respective CA’s will be obtained prior to the initiation of works within regulated

UPDATED

	<p>5. *Comments 5-8 discuss roadways/ road allowances owned by the Township vs. the municipality vs. landowners and construction therein.</p> <p>Contact Glenn Schwendinger, CAO at gschwendinger@pertheast.ca or 519-595-2800 ext. 232 for more information.</p>	<p>lands.</p> <p>4. Any required disruption of trees will be completed in consultation with and the approval of the County's Planning and Development Department.</p> <p>5. Union will be conducting detailed surveys of the areas identified by the municipality in the near future to determine the exact location of the road allowance. After these studies have been completed Union will work with the municipality and adjacent landowners to determine the location of the proposed pipeline.</p> <p>6. See Response #5.</p> <p>7. See Response #5.</p> <p>8. See Response #5.</p>
<p>Grand River Conservation Authority Letter dated July 27, 2015</p>	<p>A very small portion of the project is located within the GRCA watershed.</p> <p>A permit will be required for crossing the tributary of Smith Creek along Mill St. East (HDD method or otherwise). Other watercourse crossings or culvert installations in the GRCA watershed may require a permit.</p> <p>Attached a copy of the GRCA mapping for the portion of Milverton that is within the Watershed.</p> <p>Please advise when you are ready to proceed with the permit application for assistance.</p>	<p>Not Required.</p>
<p>Ministry of Tourism, Culture & Sport (MTCS) Email and letter dated August 6, 2015</p>	<p>Email containing a letter to Zora Crnojacki:</p> <p>Provide MTCS with any archaeological assessment and/or cultural heritage assessment reports and/or technical heritage study prior to issuance of a Notice of Completion.</p> <p>Engagement with Aboriginal communities should include a discussion about known or potential cultural heritage</p>	<p>Email containing a letter dated November 23, 2015:</p> <p>A Stage 1 Archaeological Assessment Report was submitted to the MTCS on November 17, 2015.</p> <p>A Stage 2 Archaeological Assessment will be conducted on portions of the proposed pipeline route.</p> <p><i>An Overview of Heritage</i></p>

	<p>resources and other local heritage organization should be consulted as required.</p> <p>Avoid assuming there will be no impacts to archaeological resources; recommend including the weighting of actual or potential impacts in the evaluation of alternatives.</p> <p>The MTCS Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes should be completed and included in the EA report or file.</p> <p>A Heritage Impact Assessment is recommended if potential or known heritage resources exist.</p> <p>MTCS requests continued circulation through the EA process.</p>	<p><i>Resources</i> report is being finalized for submission to the MTCS and the MTCS <i>Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes</i> has been completed. The MTCS, Ontario Heritage Trust, and the Township of Perth East were consulted during the cultural heritage study.</p>	UPDATED
<p>Ministry of Natural Resources and Forestry Email dated September 3, 2015</p>	<p>Provided comments regarding Species at Risk (SAR):</p> <ul style="list-style-type: none"> • If trees might be removed or damaged they should be identified to determine if they are listed under the <i>Endangered Species Act</i> (ESA). • If Butternut may be impacted, please refer to Section 23.7 of the ESA to determine whether the project may qualify for registration. • For any tree proposed for removal, it is recommended that a qualified individual assess the suitability of the tree for potential habitat/roosting habitat of endangered bats. • Prior to construction of the project, the project team may wish to apply for a Wildlife Scientific Collectors authorization under the <i>Fish and Wildlife Conservation Act</i>. If Snapping Turtles are found nesting in the project area, the MNRF can be contacted for further direction. 	Not Required.	

	<ul style="list-style-type: none">• If the project has the potential to impact Bobolink or Eastern Meadowlark habitat during the breeding bird season, the MNRF recommends that the project team refer to the exemption regulation under Section 23.6 of Ontario Regulation 242/08 to determine whether the project may qualify for registration.	
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Tomek, Evan

From: Oscar Alonso <oalonso@tssa.org>
Sent: July-02-15 11:53 AM
To: Park, Ryan
Cc: Kourosh Manouchehri; Mike Davis; Zora Crnojacki
Subject: Union Gas Limited Community Expansion Program. Milverton Natural Gas Pipeline Project

Thanks Ryan for the information on the referenced project, dated May 2015. The design and piping specifications project meet the requirements of O. Reg. 210/01. However, if the project is constructed in the spring of 2016, the new Code Adoption Document (CAD) enforcing the CSA Z662-15 may be in effect at that time.

I'm passing the documentation submitted to Mike Davis, our regional manager for his knowledge and/or actions that may be required.

Regards,

Oscar Alonso, P.Eng.,
Fuels Safety Engineer

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Tomek, Evan

From: Park, Ryan
Sent: July-09-15 4:20 PM
To: 'Karen Winfield'
Subject: RE: Union Gas - Milverton Pipeline Project, Perth East

Hi Karen,

Thank you very much for your response and input on our Milverton Pipeline Project. I will work towards adding the two additional crossings on our future plan drawings. We will be contacting UTRCA for pre-consultation in support of our future permit application under O.Reg. 157/06.

Thank very much for your time spent reviewing and commenting on our report.

Cheers,

Ryan Park, B.Sc., Can-CISEC
Senior Environmental Planner, Permitting & Environmental Planning
Union Gas Limited | A Spectra Energy Company
Ph: 519 436-2460 x5233007
Cell: 519 350-0289

From: Karen Winfield [<mailto:winfieldk@thamesriver.on.ca>]
Sent: July-09-15 3:52 PM
To: Park, Ryan
Subject: Union Gas - Milverton Pipeline Project, Perth East

Hi Ryan,

Please see attached UTRCA comments regarding the Union Gas Limited Community Expansion Program - Milverton Natural Gas Pipeline Project in the Township of Perth East.

Thank-you,

Karen Winfield

Land Use Regulations Officer
1424 Clarke Road London, Ontario, N5V 5B9
519.451.2800 Ext. 237 | Fax: 519.451.1188
winfieldk@thamesriver.on.ca

UPPER THAMES RIVER
CONSERVATION AUTHORITY

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Section B

Schedule 11

Page 17 of 35

UPDATED

UPPER THAMES RIVER CONSERVATION AUTHORITY

Inspiring a Healthy Environment™



July 9, 2015

Union Gas Limited
750 Richmond Street
Chatham, Ontario
N7M 5J5

Attention: **Ryan Park** – (via e-mail: rdpark@uniongas.com)

Dear Mr. Park:

**Re: Union Gas Limited Community Expansion Program
Milverton Natural Gas Pipeline Project
Environmental Protection Plan
County of Perth, Township of Perth East (Ellice)**

Upper Thames River Conservation Authority (UTRCA) staff are in receipt of the Environmental Protection Plan and associated letter regarding the Union Gas Limited Community Expansion Program: Milverton Natural Gas Pipeline Project in the Township of Perth East. We offer the following comments under Ontario Regulation 157/06 and our responsibilities as a commenting agency providing technical review and advisement related to natural heritage, water resources and natural hazard management pursuant to relevant legislation and policies set out in the UTRCA Planning Policy Manual (June 28, 2006):

UTRCA Regulated Areas

- 1) According to the enclosed project location mapping, portions of the study area occur within natural hazard and natural heritage areas regulated by the Conservation Authority. The UTRCA regulates development within the Regulation Limit in accordance with Ontario Regulation 157/06 made pursuant to Section 28 of the *Conservation Authorities Act*. This regulation requires proponents to obtain written approval from the UTRCA prior to undertaking any works in the regulated area including filling, grading, construction, alteration to a watercourse and/or interference with a wetland.

We note our mapping indicates two additional watercourses within the UTRCA portion of the study area that do not appear to be denoted on the screening report plans: one watercourse crossing the proposed pipeline route at Line 42 and one crossing at Line 52.

Water Quality, Woodlands and Other Natural Heritage Features

- 2) The study area lies within a portion of the Whirl Creek and Black Creek subwatersheds. Please refer to our latest (2012) edition of the Upper Thames River Watershed Report Cards for information

related to water quality, woodlands and other natural heritage features in these subwatersheds, available on our website at:

<http://thamesriver.on.ca/watershed-health/watershed-report-cards/>

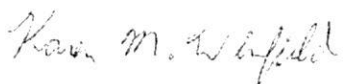
Summary

Please be advised that we have not yet received enough information to provide detailed comments regarding the project. However, we appreciate being contacted early in the process and are always open to meeting with you to discuss and work through any concerns or complications along the way.

Our office would like to be included in future circulations regarding this project. We would appreciate receiving information and reports as they become available in order to ensure that we can meet the project deadlines with our comments.

If you have any questions regarding the above information, please contact the undersigned.

Yours truly,
UPPER THAMES RIVER CONSERVATION AUTHORITY



Karen M. Winfield
Land Use Regulations Officer

Tomek, Evan

From: Glenn Schwendinger <gschwendinger@pertheast.ca>
Sent: July-10-15 1:39 PM
To: Park, Ryan
Subject: Re: Milverton Natural Gas Pipeline Project EPP

Yes I did. Thanks.

From: Park, Ryan
Sent: Friday, July 10, 2015 1:29 PM
To: Glenn Schwendinger
Subject: RE: Milverton Natural Gas Pipeline Project EPP

Hi Glenn,

Just confirming if your received the digital version of our reports from RJBurnside.

Let me know if you need anything else at this time.

Cheers,
Ryan

From: Glenn Schwendinger [<mailto:gschwendinger@pertheast.ca>]
Sent: July-10-15 9:26 AM
To: Park, Ryan
Subject: Milverton Natural Gas Pipeline Project EPP

Hi Ryan

Would it be possible to get an electronic version of the document that you provided to us for comment? It would be much easier for us to circulate it internally for comments and review.
Thanks in advance.

Glenn Schwendinger
Chief Administrative Officer
Township of Perth East
25 Mill Street East
Milverton, ON
N0K 1M0
Telephone 1-519-595-2800
Fax 1-519-595-2801
gschwendinger@pertheast.ca

Tomek, Evan

From: Park, Ryan
Sent: September-28-15 2:00 PM
To: 'Theresa Campbell'
Cc: Glenn Schwendinger
Subject: RE: Union Gas Limited Community Expansion Program - Milverton Natural Gas Pipeline Project - Comments
Attachments: Milverton Natural Gas Pipeline Project Comments 2015 Jul 23.pdf; Milverton Natural Gas Pipeline UG Response 2015 Sept 28.pdf

Hi Theresa,

My apologies for the late response, please see the attached for responses to your comment submitted on July 23, 2015. Please let me know if you have any additional comments or questions.

Regards,

Ryan

Ryan Park, B.Sc., Can-CISEC
Senior Environmental Planner, Permitting & Environmental Planning
Union Gas Limited | A Spectra Energy Company
Ph: 519 436-2460 x5233007
Cell: 519 350-0289

From: Theresa Campbell [<mailto:tcampbell@pertheast.ca>]
Sent: July-23-15 11:58 AM
To: Park, Ryan
Cc: Glenn Schwendinger
Subject: Union Gas Limited Community Expansion Program - Milverton Natural Gas Pipeline Project - Comments

Hello Ryan,

Re: Union Gas Limited Community Expansion Program
Milverton Natural Gas Pipeline Project

Attached please find comments in response to your correspondence and the Milverton Natural Gas Pipeline Project Environmental Protection Plan received by the Township of Perth East on June 5th, 2015.

Should you require additional information regarding this matter, please contact Glenn Schwendinger, CAO at gschwendinger@pertheast.ca or 519-595-2800 ext. 232.

Thank you,

Theresa

Theresa Campbell, CMO
Municipal Clerk

Township of Perth East
25 Mill Street E.
Milverton, ON
N0K 1M0

519-595-2800 ext. 223
519-595-2801 (fax)

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Township of Perth East

P.O. Box 455, 25 Mill Street
Milverton, Ontario N0K 1M0

Phone- (519) 595-2800
Fax- (519) 595-2801

Theresa Campbell, CMO
Municipal Clerk

email – tcampbell@pertheast.ca

July 23, 2015

Ryan Park
Senior Environmental Planner
Union Gas Limited
750 Richmond Street
Chatham, ON
N7M 5J5

via email rdpark@uniongas.com

Re: Union Gas Limited Community Expansion Program
Milverton Natural Gas Pipeline Project

In response to correspondence received by the Township of Perth East on June 5th, 2015 and review of the Milverton Natural Gas Pipeline Project Environmental Protection Plan the Township of Perth East has the following comments;

Staff from public works, planning, and administration has reviewed the comprehensive report and feel that it generally addresses the necessary aspects of an undertaking such as this and is confident that it deals with environmental issues appropriately.

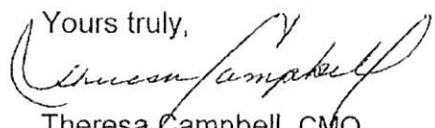
The following comments, while not necessarily environmental concerns, are appropriate to raise at this time, before matters progress to the point which could make it more difficult to address.

1. A comment/question that was identified by staff pertains to the proposed 4 inch main that is shown going through the future Gies subdivision and then heads east along Mill Street (See attached air photo). While this is not an environmental concern, it does pertain to the layout/construction. The question pertains to the timing and location of this particular section of gas main as it is shown going through a subdivision that is essentially draft only, has no final design and will be developed in phases which timing is unknown at this point. Concerns are that as the design is not final, the grades and configuration are not finalized nor is the layout of other services. Additionally, the land which will be future roadways is still in private ownership and therefore is not a current municipal right of way. If the main is required as part of the initial installation, then perhaps the 4 inch could be installed along Mill Street East. If the main is to be installed in the future, consideration should be given to having it installed in co-ordination with the development and installation of services of the subdivision, whenever that occurs.
2. With regard to sub-section 3.2 (Natural Features) of the Environmental Screening Report, if there is a potential for disruption to any such feature(s), the County's Planning and Development Department shall be contacted.
3. With regard to sub-section 3.3 (CA Reg. Lands) of the Environmental Screening Report, the respective CA's should be consulted on the project.

4. With regard to Section 4.0, sub 1., (tree protection measures) of the Environmental Screening Report, any required disruption of trees shall be in compliance with the "County of Perth By-law Number 2927 - Being a By-Law to prohibit or regulate the destruction or injuring of trees, in woodlands and woodlots in the County of Perth", found: [http://www.perthcounty.ca/fileBin/library/council/bylaws/2005/bl2927_Forest Conservation Bylaw.pdf](http://www.perthcounty.ca/fileBin/library/council/bylaws/2005/bl2927_Forest_Conservation_Bylaw.pdf) Questions on this issue should be referred to the County's Planning and Development Department.
5. The following highlight areas of roadways not owned by the Township- this may not pose a significant issue or concern for the construction, but should be noted:
6. The route on Road 130 will pass Line 38, which has been determined to be a "blind line"/"forced road"- The routing of the gas line may be entirely within the municipally-owned ROW for Road 130, but it should be noted that the two properties bounded by Road 130 and Line 38 have not yet been resolved in terms of municipal ownership.
7. At the S-bend between properties at Lot 16, Concession 5 and South Part of Lot 15, Concession 6, is a similar situation- the gas line will need to cross privately-owned properties, it appears.
8. Line 59, which crosses Perth Road 131, is also a "blind line"/"forced road", however the process has yet to start for transferring ownership to the Township.

Should you require additional information, please contact Glenn Schwendinger, CAO at gschwendinger@pertheast.ca or 519-595-2800 ext. 232.

Yours truly,



Theresa Campbell, CMO
Municipal Clerk

cc. G. Schwendinger, CAO



union gas
Aqua Energy Corp.

September 30, 2015

Theresa Campbell, CMO
Municipal Clerk
P.O. Box 455
25 Mill Street
Milverton, Ontario
N0K 1M0
tcampbell@perth East

SENT ELECTRONICALLY VIA EMAIL

Dear Ms. Campbell,

**Subject: Union Gas Limited Community Expansion Program
Milverton Natural Gas Pipeline Project**

Further to the letter dated July 23, 2015 which was received, we have prepared the following response for your consideration.

1. Union Gas is planning on installing the 4" PE pipeline within the subdivision as it is constructed. This section of pipeline is not required when Union Gas installs the initial distribution system in Milverton. Union Gas will work with the Township and the developer to determine the location and timing of installation the pipeline within the subdivision.
2. All required environmental permit and approval will be obtained prior to the initiation of works, including those issued by the County of Perth. The County's Planning and Development Department shall be consulted for permitting requirement if there is the potential for disruption of the natural feature identified in Section 3.2 of the Environmental Screening Report.
3. Respective CA's (Maitland Valley Conservation Authority, Grand River Conservation Authority and Upper Thames River Conservation Authority) have received copies of the Environmental Protection Plan and Environmental Screening Report. All required permits and approvals for the respective CA's will be obtained prior to the initiation of works within regulated lands.
4. Any required disruption of trees will be completed in consultation with and the approval of the County's Planning and Development Department.
5. Union will be conducting detailed surveys the areas identified by the municipality in the near future to determine the exact location of the road allowance. After these studies have been completed Union will work with the municipality and adjacent landowners to determine the location of the proposed pipeline.

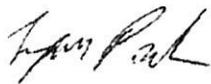
6. See Response # 5

7. See Response # 5

8. See Response # 5

If you have further questions or comments related to the Milverton Natural Gas Project please do not hesitate to contact us.

Yours Truly,

A handwritten signature in black ink, appearing to read "Ryan Park". The signature is fluid and cursive, with the first name "Ryan" and last name "Park" clearly distinguishable.

Mr. Ryan Park,
Senior Environmental Planner
rdpark@uniongas.com
519 436-2460 x5233007



400 Clyde Road, P.O. Box 729 Cambridge, ON N1R 5W6

Phone: 519.621.2761 Toll free: 866.900.4722 Fax: 519.621.4844 Online: www.grandriver.ca

July 27, 2015

Ryan Park, Senior Environmental Planner
Union Gas Ltd.
750 Richmond Street,
Chatham, ON N7M 5J5

Dear Mr. Park,

**Subject: Union Gas Limited Community Expansion Program,
Milverton Natural Gas Pipeline Project, Environmental Protection Plan**

The Milverton Natural Gas Pipeline Project, Environmental Protection Plan addressed to Joe Farwell at the GRCA, has recently been forwarded to my attention for a response. Having reviewed the Environmental Protection Plan and the Project Location Maps, I can advise you that a very small portion of the project, located in the eastern half of Milverton, is located within the GRCA Watershed. The balance of the project is located in the Maitland Valley C.A.'s Watershed and the Upper Thames River C.A.'s Watershed.

I have attached a copy of our GIS mapping for that portion of Milverton that is within our watershed. It would appear from the Project Location Maps that the only portion of the project that may affect our interests is the installation of the 2" plastic line along Mill St. East. It appears that this line crosses a tributary of Smith Creek. Although installation will be through Horizontal Directional Drilling, crossing a regulated watercourse is considered an alteration to that watercourse and would trigger the need for a permit. Similarly, any other watercourse crossings or culvert installations within the GRCA Watershed may require a permit.

Please advise when you are ready to proceed with the permit application and I can assist you.

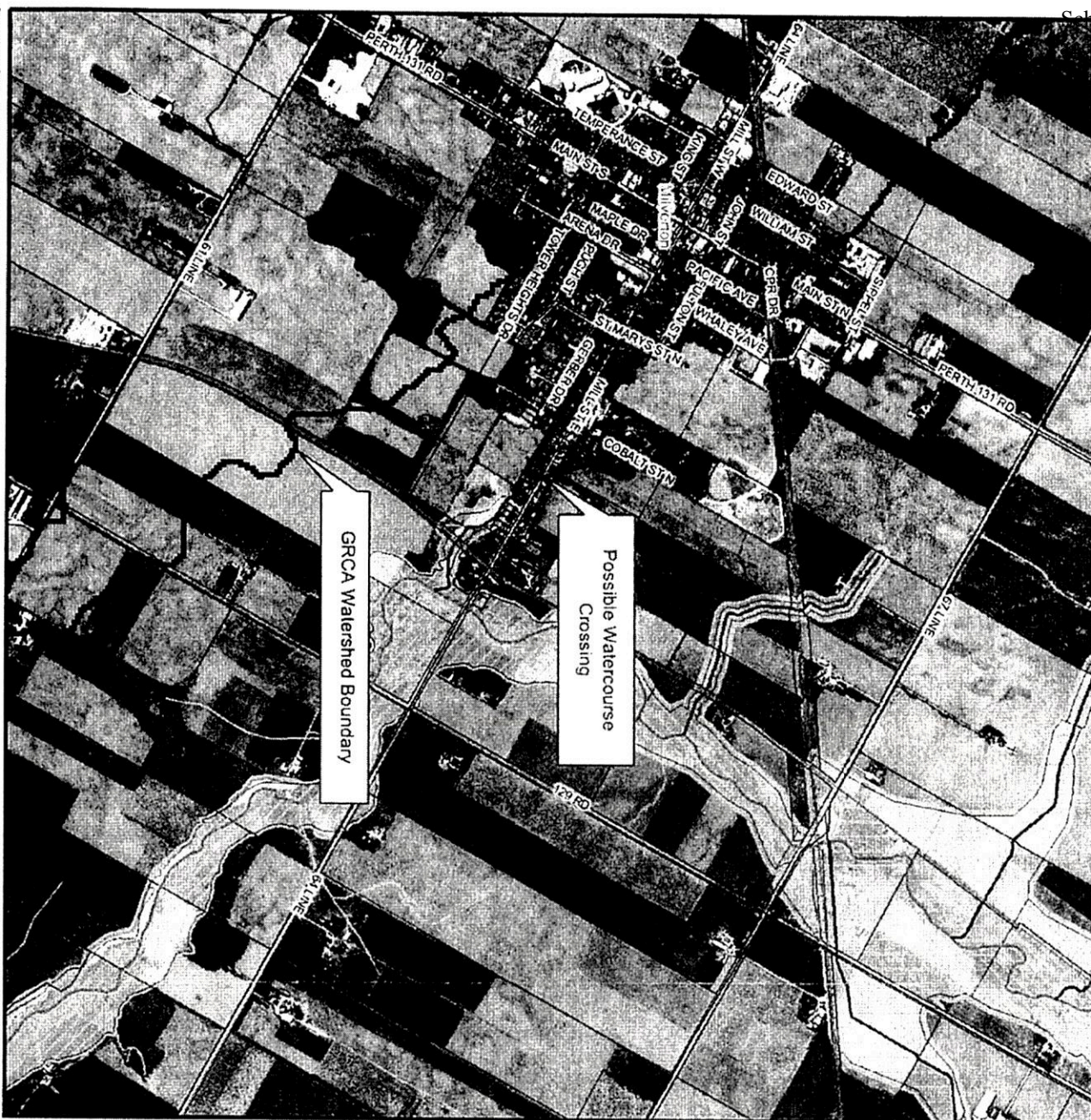
Sincerely,

A handwritten signature in black ink that reads "Drew Cherry". The signature is fluid and cursive, with the first name "Drew" and last name "Cherry" clearly distinguishable.

Drew Cherry
Resource Planner
Grand River Conservation Authority
519-621-2763 ext. 2237
dcherry@grandriver.ca

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THIS MAP IS NOT TO BE USED FOR NAVIGATION



Grand River Conservation Authority

Map created July 27, 2015

Milverton Gas Pipeline

LEGEND

- WATERSHED BOUNDARY (GRCA)
- UTILITY LINE (NRVS)
- ROADS-ADDRESS (MNR)
- RAILWAY (NRVS)
- LAKE FLOOD (GRCA)
- MUNICIPAL BOUNDARY (GRCA)
- FISH SPawning AREA (MNR)
- CLASSIFIED STREAMS - NEW (NRVS)
- COLD WATER
- WARM WATER
- UNKNOWN
- WATERCOURSE - DRAFT (GRCA)
- DRAINAGE NETWORK (GRCA)
- PARCELS ASSESSMENT (MPAC)
- FLOODPLAIN-SPECIAL POLICY AREA (GRCA)
- FLOODPLAIN (GRCA)
- ENGINEERED
- APPROXIMATE
- ESTIMATED
- LAKE EROSION (GRCA)
- LAKE DYNAMIC BEACH (GRCA)
- WETLAND (GRCA)
- SLOPE VALLEY (GRCA)
- STEEP
- OVERSTEEP
- SLOPE EROSION (GRCA)
- STEEP
- ONE ROSTEP
- TOE
- WETLAND (NRVS)
- PROVINCIAL SIGNIFICANT
- LOCALLY SIGNIFICANT
- UNEVALUATED
- PARKS (GRCA)
- REGULATION LIMIT 2014 (GRCA)
- WATERBODY - DRAFT (GRCA)
- DRAINAGE POLY (NRVS)
- 2010 ORTHO (ONT)

GRCA Disclaimer

This map is for informational purposes only. Information contained herein is not a substitute for professional advice or a site survey and is subject to change without notice. The Grand River Conservation Authority does not accept liability for any damages, the accuracy of the information contained on this map. Any interpretations or decisions drawn from this map are the sole responsibility of the user.

The scale for each map layer is shown in parentheses on the map legend. For a complete listing of sources and citations go to:

<http://www.grca.ca/infocentre/citations.cfm>

NAD 1983 UTM Zone 17
 Scale: 1:10,000

Tomek, Evan

From: Muller, Joseph (MTCS) <Joseph.Muller@ontario.ca>
Sent: August-06-15 4:09 PM
To: zora.crnojacki@ontarioenergyboard.ca
Cc: Park, Ryan
Subject: Union Gas Limited Community Expansion Program
Attachments: UG Kettle Point Lambton Shores 2015-08-06 CSU MTCS Comments.pdf; UG Milverton - Perth East - Perth 2015-08-06 CSU MTCS Comments.pdf

Hello Zora Crnojacki:

Please find attached our comments from the Culture Services Unit at the Ministry of Tourism, Culture and Sport on the following projects:

Kettle Point / Lambton Shores Natural Gas Pipeline Project; and,
Milverton Natural Gas Pipeline Project.

I may be contacted for any questions or discussion of our comments on these files. Thank-you for your assistance,

Joe

Joseph Muller, RPP, MCIP

Heritage Planner
Ministry of Tourism, Culture and Sport
Culture Division | Programs and Services Branch | Culture Services Unit

401 Bay Street, Suite 1700
Toronto, Ontario M7A 0A7

Tel. 416.314.7145 | Fax. 416.314.7175

**Ministry of Tourism,
Culture and Sport**

Culture Services Unit
Programs and Services Branch
401 Bay Street, Suite 1700
Toronto ON M7A 0A7
Tel: 416 314 7145
Fax: 416 212 1802

**Ministère du Tourisme,
de la Culture et du Sport**

Unité des services culturels
Direction des programmes et des services
401, rue Bay, Bureau 1700
Toronto ON M7A 0A7
Tél: 416 314 7145
Télé: 416 212 1802



August 6, 2015 (EMAIL ONLY)

Zora Crnojacki, Coordinator
Ontario Pipeline Coordination Committee
Ontario Energy Board
Suite 2601, 2300 Yonge Street
Toronto, ON M4P 1E4
E: zora.crnojacki@ontarioenergyboard.ca

RE: MTCS file #: 0002991
Proponent: Union Gas
Subject: Environmental Protection Plan
Milverton Natural Gas Pipeline Project
Location: Municipality of Perth East, Perth County, Ontario

Dear Zora Crnojacki:

The Ministry of Tourism, Culture and Sport (MTCS) is in receipt of the Environmental Protection Plan for the above project. MTCS's interest in this EA project relates to its mandate of conserving Ontario's cultural heritage, which includes:

- Archaeological resources, including land-based and marine;
- Built heritage resources, including bridges and monuments; and,
- Cultural heritage landscapes.

Under the ER process for Ontario Energy Board projects, the proponent is required to determine a project's potential impact on cultural heritage resources. MTCS should be provided with any archaeological assessment and/or cultural heritage assessment reports completed for the above project prior to issuance of a Notice of Completion.

While some cultural heritage resources may have already been formally identified, others may be identified through screening and evaluation. Aboriginal communities may have knowledge that can contribute to the identification of cultural heritage resources, and we suggest that any engagement with Aboriginal communities includes a discussion about known or potential cultural heritage resources that are of value to these communities. Municipal Heritage Committees, historical societies and other local heritage organizations may also have knowledge that contributes to the identification of cultural heritage resources.

Archaeological Resources

It is understood from the Environmental Protection Plan that a Stage 1 archaeological assessment (AA) shall be undertaken by an archaeologist licenced under the OHA, who is responsible for submitting the report directly to MTCS for review. While construction is described as remaining entirely within the disturbed portion of the road allowance, we note that this corridor comprises an original concession road, built prior to archaeological assessments, and so may intersect as yet unregistered archaeological sites. The scope of soil disturbance related to the project also includes proposed regulating stations and may involve temporary staging and stockpiling areas and access routes which may be relatively undisturbed. As a result, we advise against presuming that there will be no impacts to archaeological resources and instead recommend including the weighting of actual or potential impacts in the evaluation of alternatives.

Built Heritage and Cultural Heritage Landscapes

The Environmental Protection Plan confirms that the study area will be screened for potential built heritage and cultural heritage landscapes. The MTCS *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes* should be completed to help determine potential impacts to impact cultural heritage resources. The Clerks for the Municipality of Perth East and Perth County can provide information on property registered or designated under the *Ontario Heritage Act*. Municipal Heritage Planners can also provide information to complete the checklist.

If potential or known heritage resources exist, MTCS recommends that a Heritage Impact Assessment (HIA), prepared by a qualified consultant, should be completed to assess potential project impacts. Our Ministry's *Info Sheet #5: Heritage Impact Assessments and Conservation Plans* outlines the scope of HIAs. Any HIA completed is to be sent to MTCS for review, and made available to local organizations or individuals who have expressed interest in heritage.

Environmental Assessment Reporting

All technical heritage studies and their recommendations are to be addressed and incorporated into EA projects. Technical heritage studies completed for the EA project are to be provided to MTCS before a Notice of Completion is issued. If screening has identified no known or potential cultural heritage resources, or no impacts to these resources, the completed checklists and supporting documentation should be included in the EA report or file.

MTCS requests continued circulation through the EA process: I may be contacted for any questions or clarification.

Sincerely,

Joseph Muller, RPP/MCIP
Heritage Planner
Joseph.Muller@Ontario.ca

Copied to: Ryan Park, Senior Environmental Planner, Union Gas

It is the sole responsibility of proponents to ensure that any information and documentation submitted as part of their EA report or file is accurate. MTCS makes no representation or warranty as to the completeness, accuracy or quality of the any checklists, reports or supporting documentation submitted as part of the EA process, and in no way shall MTCS be liable for any harm, damages, costs, expenses, losses, claims or actions that may result if any checklists, reports or supporting documents are discovered to be inaccurate, incomplete, misleading or fraudulent.

MTCS must be notified if archaeological resources are impacted by EA project work. All activities impacting archaeological resources must cease immediately, and a licensed archaeologist is required to carry out an archaeological assessment in accordance with the Ontario Heritage Act and the Standards and Guidelines for Consultant Archaeologists.

If human remains are encountered, all activities must cease immediately and the local police as well as the Cemeteries Regulation Unit of the Ministry of Government and Consumer Services must be contacted. In situations where human remains are associated with archaeological resources, MTCS should also be notified to ensure that the site is not subject to unlicensed alterations which would be a contravention of the Ontario Heritage Act.

Tomek, Evan

From: Tomek, Evan
Sent: November-23-15 12:42 PM
To: 'Joseph.Muller@Ontario.ca'
Subject: Community Expansion Program Update
Attachments: MTCS Moraviantown Update.pdf; MTCS Walpole Update.pdf; MTCS Milverton Update.pdf; MTCS KP LS Update.pdf

Good Afternoon Joseph,

Thank you for your reviews of Union Gas' Environmental Protection Plans for our Moraviantown, Walpole Island, Milverton, and Kettle Point / Lambton Shores Natural Gas Pipeline Projects.

I have attached four letters providing an update regarding our Archaeology and Cultural Heritage works for each project.

I appreciate your time with these reviews, and if you have any questions don't hesitate to ask.

Thanks,

Evan

Evan Tomek, BES
Environmental Planner *on behalf of*
Union Gas Limited | A Spectra Energy Company
745 Richmond Street | Chatham, ON N7M 5J5
Tel: 519 436 2460 ext 5236904
Cell: 226 229 9598
email: etomek@uniongas.com





uniongas

A Spectra Energy Company

November 23, 2015 (VIA EMAIL)

Joseph Muller, Heritage Planner
Ministry of Tourism, Culture and Sport
Culture Services Unit
Programs and Services Branch
401 Bay Street, Suite 1700
Toronto, ON M7A 0A7
Email: Joseph.Muller@Ontario.ca

RE: Milverton Natural Gas Pipeline Project

Dear Mr. Muller,

Thank you for your review of the report entitled, *Milverton Natural Gas Pipeline Project Environmental Protection Plan, May 2015*, and subsequent letter dated August 6, 2015. We appreciate you taking the time to review the report and provide important feedback.

Union Gas Limited (Union) retained the services of Stantec Consulting Ltd. (Stantec) to complete a Stage 1 and 2 Archaeological Assessment of the proposed pipeline project area to identify potential impacts to archaeological resources. The Stage 1 Archaeological Assessment report was completed and submitted to the Ministry on November 17, 2015. The Stage 1 report recommended that a Stage 2 Archaeological Assessment be conducted on portions of the project area that exhibit a moderate to high potential for the identification and recovery of archaeological resources. The Stage 2 surveys will be completed in the near future with the submission of the Stage 2 Archaeological Assessment report to follow.

Union retained the services of Stantec to identify potential built heritage and cultural heritage landscapes in the project area. Stantec consulted the Ministry, the Ontario Heritage Trust, and the Township of Perth East to identify such features. Currently, the *Overview of Heritage Resources* report is being finalized for submission to the Ministry and the Ministry's *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes* has been completed.

Thank you again for your time and we will notify you of the submission of the aforementioned reports. If you have any questions do not hesitate to ask.

Yours Truly,

Evan Tomek
Environmental Planner
Union Gas Limited
Tel: 519.436.2460 ext 5236904
Email: etomek@uniongas.com

Tomek, Evan

From: Marriott, David (MNRF) <David.Marriott@ontario.ca>
Sent: September-03-15 9:22 AM
To: Park, Ryan
Subject: FW: Milverton Natural Gas Pipeline Project - MNRF Comments

Hi Ryan,

I apologize for the delay in responding.

The Ministry of Natural Resources and Forestry (MNRF) Guelph District Office is in receipt of the 'Milverton Natural Gas Pipeline Project' Environmental Protection Plan (EPP). It is understood that the project will include the installation of approx. 20 kilometers of new pipeline (NPS 4 inch diameter) along East Perth Road and Perth Road 131. A new distribution regulation station is also proposed near the Perth Road 131 and Line 61 intersection. The EPP is intended to support the project by defining the natural heritage features in the project area, and provide recommended mitigation measures to minimize any potential negative impacts to these features. MNRF staff have had an opportunity to review the EPP, and can offer the project team the following species at risk comments for consideration.

EPP Comments

Species at Risk Comments

- Section 4.0 of the EPP provides some direction for tree protection measures. The MNRF notes that Butternut is known for Perth County, and the species receives both individual and general habitat protection under the *Endangered Species Act* (ESA). If the project has the potential to remove or damage any trees, it is recommended that the trees first be identified to determine if they are listed under the ESA. Under Ontario Regulation 242/08, certain activities are allowed that would impact endangered and threatened species, provided the requirements of the exemption regulations are followed. Butternut is included in these exemption regulations under Section 23.7. If Butternut may be impacted, it is recommended that the project team refer to Section 23.7 to determine whether the project may qualify for registration.

In addition to the above, for any tree proposed for removal, it is recommended that a qualified individual assess the suitability of the tree for potential habitat of endangered bats prior to removal. The MNRF notes that two endangered bat species (Little Brown Myotis and Northern Myotis) under the ESA are suspected to occur in Perth County. If a tree proposed for removal is identified as potential bat roosting habitat, it is recommended that a survey be undertaken by a qualified individual in accordance with MNRF's survey protocol to determine presence/absence of listed bats. This survey protocol can be provided on request.

- Records for Snapping Turtle (special concern) and Eastern Milksnake (special concern) are present in the vicinity of the project area. This is noted in Section 3.2.4 of the EPP. The EPP has identified that the potential for Milksnake habitat in the work area is low, but Snapping Turtles is likely to occur. Prior to construction of the project, the project team may wish to apply for a Wildlife Scientific Collectors authorization under the *Fish and Wildlife Conservation Act* in order to have the authority to capture and relocate any turtles or snakes (not listed as threatened or endangered species) moving through the construction area. If Snapping Turtles are found nesting in the project area, the MNRF can be contacted for further direction, as noted in the EPP.
- With respect to potential impacts on Bobolink (threatened) and Eastern Meadowlark (threatened) and their habitat, the EPP identifies that most of the farm fields in the area support more intensive row crop agricultural (e.g., soybeans, corn, wheat) and that the pipeline is to be installed within existing road right-of-ways as close as

possible to the road edge. The EPP also states that if the pipeline must be installed within a fallow field or pasture, work should occur outside of the breeding bird season. If this is not possible, a nest survey by a qualified biologist prior to construction should be completed. If the project has the potential to impact Bobolink or Eastern Meadowlark habitat during the breeding bird season, the MNRF recommends that the project team refer to the exemption regulation under Section 23.6 of Ontario Regulation 242/08 to determine whether the project may qualify for registration.

Please contact the undersigned if further comment or clarification is required.

Thanks

Dave

Dave Marriott

District Planner

Ministry of Natural Resources and Forestry, Guelph District

1 Stone Road West

Guelph ON, N1G 4Y2

(P) 519-826-4926

(F) 519-826-6849

email: david.marriott@ontario.ca

Milverton Landowner Listing

Legal Description: PT LOT 7 CONCESSION 3 (MORNINGTON) PARTS 1, 2 & 3, 44R3679; PERTH EAST	Owner: Growmark Inc.	PIN: 53065-0325(LT)	SIZE: 15m x 25m
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UNION GAS LIMITED

MORAVIANTOWN PROJECT

Contents

PROJECT SUMMARY.....	2
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Schedules

Schedule 1	Map of Proposed Facilities
Schedule 2	Customer Attachment Forecast
Schedule 3	Letter of Support
Schedule 4	Schematic of Proposed Project
Schedule 5a	Capital Costs for first year
Schedule 5b	Capital Costs for first 10 years
Schedule 6	Project DCF Analysis
Schedule 7	DCF Analysis & Parameters
Schedule 8	Design and Pipeline Specifications
Schedule 9	Union's Standard Construction Methods
Schedule 10	Proposed Construction Schedule
Schedule 11	Environmental Protection Plan Update

PROJECT SUMMARY

1. This evidence will update the evidence filed by Union at Exhibit A, Tab 2, Section C of the EB-2015-0179 proceeding.
2. First Nations Officials, Residents, and Business Owners in the Delaware Nation of Moraviantown [“Project Area”], have requested natural gas service from Union Gas Limited [“Union”]. The Project Area is located in the Municipality of Chatham-Kent.
3. Union had identified a specific area where construction of pipelines will take place. The streets that Union intends to service are: Norton Line, Knoll Road, School House Road, Lunaapeew Rd and Littlejohn Road/Corn Plant Rd ending at Austin Line [“Project”].
4. This Project does not require Leave to Construct approval. In order to provide the Ontario Energy Board with information about this Project, Union has prepared an information package describing the Project. Union is requesting an order from the OEB pursuant to section 36 (1), as described in earlier sections of this evidence.
5. Delaware Nation of Moraviantown is a First Nation community located along the Thames River near Thamesville, Ontario covering an area of approximately 13 square kilometers. Moraviantown is inhabited by the Lenape (Lunaapeew) People of the Delaware First Nation, with approximately 550 residents living in the community and a total Band membership of over 1000.
6. A map showing the location of the Delaware Nation of Moraviantown can be found at Schedule 1.
7. Union currently holds the Certificate of Public Convenience and Necessity (RP-2005-0016/EB-2005-0312) and Franchise Agreement (RP-2005-0016/EB-2005-0313), for the Municipality of Chatham-Kent.

8. The route of the Proposed Facilities was selected in order to optimize economic benefits and social features while minimizing environmental impacts.
9. If the Application is approved, Union forecasts that 38 customers in the Project Area will have natural gas service by year 10 of the Project (20 residential and 18 commercial).
10. The total capital cost of the Proposed Facilities for the first 10 years of the Project is \$563,873. These costs include pipeline costs, station costs, and the cost to service customers.
11. The Project has a net present value ["NPV"] of \$0 and a profitability index ["PI"] of 1.0.
12. This profitability index of 1.0 is based on an Aid to Construct of \$311,467, and a financial contribution from the First Nation of \$5,000 per year for the first 10 years of the Project.
13. This Project is contingent upon approval of a grant from the province or the payment of an aid to construct from another party. In absence of this funding the Project will not proceed.
14. An Environmental Protection Plan ["EPP"] for the Project was prepared by Union's Environmental Department in 2015. The comments of various provincial and municipal agencies and the public have been sought and considered in the development of the EPP. Union's standard construction procedures, combined with the appropriate supplemental mitigation measures recommended in the EPP, will be employed to address environmental and public concerns. An update to the original EPP was prepared in 2017 and can be found at Schedule 11.
15. Construction of the Proposed Facilities for the Project is expected to commence in 2017 with an in service date of December 2017, contingent on receipt of the necessary aid to construct. Services will be constructed for the first ten years of the Project

MARKET PROFILE

Community Profile

16. Delaware Nation of Moraviantown is a First Nations community located along the Thames River near Thamesville, Ontario, covering an area of approximately 13 km². Delaware Nation of Moraviantown is inhabited by the Lenape (Lunaapeew) People of the Delaware First Nation, with approximately 550 residents living in the community and a total Band membership of over 1000.

Residential and Commercial Survey

17. Union did not complete a survey of residential customers in the Delaware Nation of Moraviantown rather Union has relied on surveys completed in other First Nations in south-western Ontario. A door-to-door survey was completed in the Fall of 2015 for Kettle and Stony Point First Nation. The attachment rate identified during this survey has been applied to the potential residential customers in the Delaware Nation of Moraviantown to determine total customer attachments for this project for the purposes of this application. The overall attachment rate applied was 100% for commercial and industrial customers in year 1. For residential customers an attachment rate of 38% is expected over 10 years.

Customer Attachment Forecast

18. Union is forecasting a total of 20 existing residential and 18 existing small and medium commercial will be attached by the tenth year of the Project as outlined in the customer attachment forecast in Schedule 2.
19. Union has met with the Delaware Nation of Moraviantown on numerous occasions. The Delaware Nation of Moraviantown support bringing natural gas to the area.
20. A Letter of Support for the Project is included in Schedule 3.

PROPOSED FACILITIES

21. The pipelines in the Project can be described as follows. The pipeline will start at the existing facilities on Norton Line and continuing southeast on Knoll Road, east on School House Road, and north on Littlejohn Rd/Corn Plant Road ending at Austin Line. A schematic drawing showing the Project is provided in Schedule 4.
22. The pipelines identified above have been sized to meet the forecasted growth in the Project Area as per Schedule 2.

PROJECT COSTS

23. The total estimated cost for the Project is \$563,873 for the first 10 years of the Project. This cost includes all pipeline costs of \$463,243 and the cost of services of \$100,630 for the first 10 years of the Project.
24. The estimated first year capital costs for the construction of the Proposed Facilities including service costs are provided at Schedule 5a. The estimated costs cover all costs related to materials, construction and labour required to construct distribution mains. This figure also includes environmental costs.
25. A year by year breakdown of the proposed capital costs of the Project for the first 10 years of the Project can be found at Schedule 5b.

ECONOMIC FEASIBILITY

26. The Proposed Facilities are required in order to expand natural gas distribution to the Project Area.

27. A standalone Discounted Cash Flow (“DCF”) analysis was completed for the proposed expansion. Union has employed an economic feasibility test consistent with the Board’s recommendations in the E.B.O. 188 Report on Natural Gas System Expansion.
28. The DCF can be found at Schedule 6. This Schedule indicates a Net Present Value (“NPV”) of \$0 and Profitability Index (“PI”) of 1.00 including an Aid to Construct of \$311,467. The DCF is based on capital of \$563,873. Capital used in the DCF can be found in Schedule 5a and 5b.
29. The DCF includes the collection of the System Expansion Surcharge (“SES”) at a rate of \$0.23 per m³. The SES term will have a termination date as of the end of the calendar year (December, 31 2057); 40 years and 1 month from the forecast in-service date of December, 1 2017.
30. The financial contribution from the First Nation to the project is \$5,000 per year for 10 years.
31. This Project is contingent upon approval of a grant from the province or the payment of an aid to construct from another party. In absence of this funding the Project will not proceed.
32. No upstream reinforcement is required to complete this project.
33. Schedule 7 provides the key inputs, parameters and assumptions used in completing the DCF analysis.

DESIGN AND CONSTRUCTION

34. The design and pipe specifications are outlined in Schedule 8. 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.

35. All polyethylene pipe and fittings will be manufactured and certified in accordance with the *Canadian Standards Association B137.4-13 Polyethylene (PE) Piping systems for Gas Services*. The pipe specifications are designed to provide the maximum operating pressure of 550 kPa. The pipeline will be tested in accordance with the requirements of the Ontario Regulation 210/01.
36. The minimum depth of cover to the top of the pipe and pipe appurtenances will be in accordance with the requirements of *Clause 12.4.7 and 12.4.8 of the CSA Code Z662-15* for polyethylene piping.

Construction Procedures and Project Schedule

37. The Proposed Facilities will be constructed using Union's standard practices and procedures and will be in compliance with the mitigation measures identified in the Environmental Protection Plan ["EPP"]. Schedule 9 provides a summary of Union's standard construction methods. Union's construction procedures are continually updated and refined to minimize potential impacts to the lands and the public.
38. Material is readily available for the Project and Union foresees no problem in obtaining a contractor to complete the proposed construction. The EPP will be provided to the contractor.
39. Schedule 10 provides the proposed construction schedule for the Project. Construction of the Proposed Facilities is expected to begin in summer of 2017 with an in service date of December 2017. Services will be constructed for the first 10 years of the Project.
40. Approvals are pending from the Delaware Nation of Moraviantown , the Municipality of Chatham Kent, and Lower Thames Valley Conservation Authority.

ENVIRONMENTAL MATTERS

41. The original EPP for the proposed pipeline was prepared by Union's Environmental Planning Department in 2015 and was filed with the Board as Exhibit A, Tab 2, Section C, Schedule 10 as part of the EB-2015-0179 proceeding. The EPP was prepared to meet the intent of the Board's document *"Environmental Guidelines for Locating, Constructing and Operating Hydrocarbon Pipelines in Ontario"* [2011]. An update to the original EPP was prepared in 2017 in anticipation of the Project being constructed in 2017 and can be found at Schedule 11.
42. The objectives of the EPP are to:
 - a) document existing environmental features;
 - b) identify First Nation, agency and public concerns;
 - c) identify potential environmental impacts as a result of construction;
 - d) present mitigation techniques to minimize environmental impacts; and
 - e) provide pipeline contractors and environmental inspectors involved in the construction of the pipeline with general and site-specific guidelines for environmental protection that supplement Union's construction specifications.
43. The original EPP was prepared before the scope of the Project was finalized. As such, some areas shown in the original EPP may not be included in the Project.
44. All pipelines will be constructed in the manner recommended and described in the Board document *"Environmental Guidelines for Locating, Constructing and Operating Hydrocarbon*

pipelines in Ontario".

45. A copy of the original EPP has been submitted to the Ontario Pipeline Coordinating Committee ["OPCC"], the Delaware Nation of Moraviantown, local municipalities, and government agencies. . A summary of comments and Union's response can be found in the EPP update.
46. There are six watercourse crossings associated with this Project. Union will follow all permit conditions from the Regulating Agency.
47. Union will work with Indigenous and Northern Affairs Canada and the Delaware Nation of Moraviantown to confirm any necessary approvals to construct on First Nation land.
48. When the Project is constructed, the most up-to-date construction specifications will be followed.
49. Union will ensure that the recommendations in the EPP, commitments and the conditions of approval are followed. An environmental inspector will be assigned to the Project to ensure that all activities comply with all of the Board's conditions of approval.
50. The results of the EPP and update indicate that the environmental and socio-economic effects associated with construction of the Project are generally short-term in nature and minimal. There are no significant cumulative effects as a result of this pipeline construction.

LAND MATTERS

51. The proposed pipelines for the Project will be located within road allowances and no permanent or temporary land rights are required.
52. No stations are required for this Project.

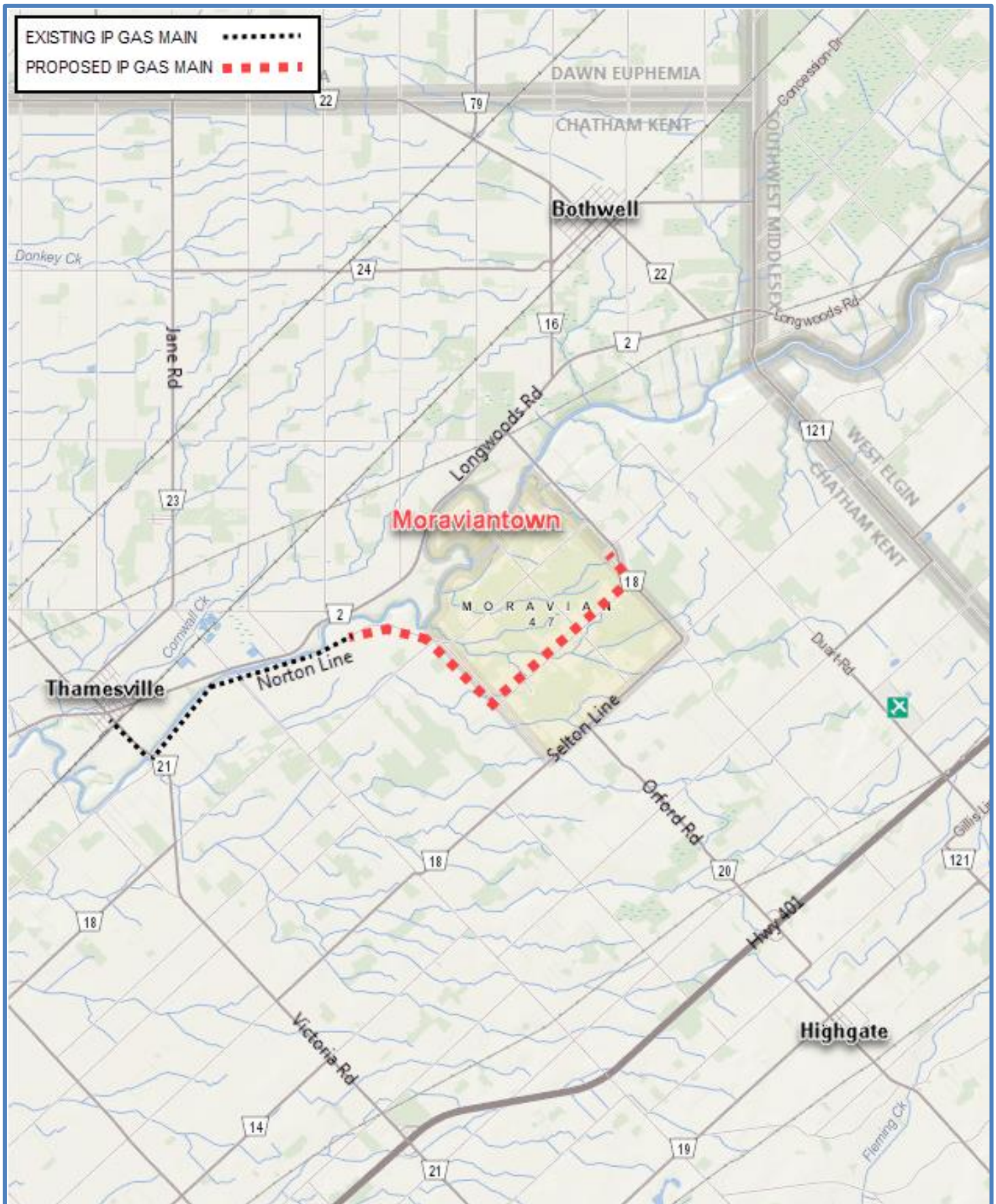
INDIGENOUS AND MÉTIS CONSULTATION

53. Union has a long standing practice of consulting with First Nation and Métis, and has programs in place whereby Union works with them to ensure they are aware of Union's projects and have the opportunity to participate in both the planning and construction phases of the Project.
54. Union has an extensive data base and knowledge of First Nations and Métis organizations in Ontario and consults with the Tribal organizations and the data bases of the Ministry of Natural Resources, Ministry of Aboriginal Affairs and Indigenous and Northern Affairs Canada to ensure consultation is carried out with the most appropriate groups.
55. Union has signed a General Relationship Agreement with the Métis Nation of Ontario which describes Union's commitments to the Métis when planning and constructing pipeline projects.
56. Union has consulted with the Delaware Nation of Moraviantown since 2014 and continues to meet and consult with them on expansion of natural gas facilities to their community. The following is a summary of consultation which has occurred.

February 21 2017	Met with Chief and Council to review the options for servicing the community
November 21 2016	Advised Chief Peters of the results of the OEB generic hearing
August 26 2016	Met with Robin King Economic Development Officer to discuss status of the project and filing
January 25 2016	Advised Chief Peters regarding the OEB will be conducting a generic hearings on Community expansion filing
June 29, 2015	Union held a Community meeting to provide information on the expansion project to the community
June 26, 2015	Union met with Chief and Council to present natural gas expansion plans and details of OEB filing. Council approved approach and will continue to work with Union to source funding
June 1 2015	Sent Environmental Protection Plan to Robin King
May 19, 2015	Sent update email to Chief Peter and Robin King on Union's OEB application which includes their community
March 16, 2015	Letters sent out by Chief Peters to Ontario Premier and Ministers from the Delaware Nation requesting Natural Gas expansion funding and supporting Union Gas expansion into Community
February 18, 2015	Meeting with Chief and Council cancelled last minute and rescheduled for late March as per Chief Peters
October 17, 2014	Chief Peters postponed Union presentation to February 2015 council meeting
Sept 19, 2014	Met with Chief Peters and Robin King Director of Economic Development to review the project and economics. Council meeting scheduled for Oct. 19 2014

57. Union will continue to meet and consult with the First Nations noted above.
58. During construction, Union has inspectors in the field who are available to First Nations as a primary contact to discuss and review any issues that may arise during construction.
59. When Union completes the necessary archaeological assessments for the Project Union will consult with and provide the result of the surveys to any First Nations upon their request.

MORAVIANTOWN – Community Expansion Key Plan



Moraviantown Attachment Forecast

[illegible]

Delaware Nation

RESOLUTION

Moravian of the Thames



The Council of DELAWARE NATION – MORAVIAN OF THE THAMES			Province ONTARIO	Chronological No. 0089-17
Date of Duly convened meeting	➡ Day 03	Month 03	Year 2017	Reference No

DO HEREBY RESOLVE:

Delaware Nation of Moraviantown is supportive of Union Gas extending natural gas service to the commercial area within our community. As discussed at our meeting on February 21st:

1. We understand that the project can only go ahead with financial support, estimated at \$325,000 to \$350,000, from the Provincial Government.
2. We understand that a financial commitment of \$5,000 annually is required for our community for a period of 10 years.
3. We understand that a system expansion surcharge will be required to assist with the cost of expanding natural gas within our community but there is still significant energy savings to our community for our heating needs.
4. The project would provide value and the opportunity for future expansions within our community as well as for potential economic development.
5. Natural gas is a reliable source of energy for our community, the rates are stable, and offers the lowest GHG emissions compared to propane and heating oil.

Quorum:3 of 5.


Chief


Councillor


Councillor


Councillor


Councillor

Councillor

TOTAL ESTIMATED CAPITAL COSTS – YEAR 1

MORAVIANTOWN EXPANSION PROJECT

Total Materials	\$55,393	\$55,393
Total Contract Cost	\$252,100	\$252,100
Total Company Costs	\$22,220	\$22,220
Miscellaneous (XRay, Construction Survey, Lands)	\$99,145	\$99,145
Station Labour and Materials	\$0	\$0
Contingency	\$34,385	\$34,385
Interest During Construction	\$0	
Service Costs	\$76,870	\$76,870
Total Estimated Capital Costs		\$540,113

Moraviantown

Proposed Capital (\$000's)

Pipeline & Station Capital
 Service, M&R Installation
 Total

	1	2	3	4	5	6	7	8	9	10
Total										
463	463									
101	77	8	3	3	2	2	2	2	2	2
564	540	8	3	3	2	2	2	2	2	2

Moraviantown
Project Year (\$000's)

1 **2** **3** **4** **5** **6** **7** **8** **9** **10** **11** **12** **13** **14** **15**

Cash Inflow

Revenue
 System Expansion Surcharge (SES)
 Municipal Financial Support

Expenses:

O & M Expense
 Municipal Tax
 Income Tax

Net Cash Inflow

Cash Outflow

Incremental Capital
 Change in Working Capital
 Cash Outflow

Cumulative Net Present Value

Cash Inflow
 Cash Outflow
 NPV By Year

Project NPV

Profitability Index

By Year PI
 Project PI

4	8	9	10	11	11	11	12	12	12	12	12	12	12	12
6	13	15	16	17	18	18	19	19	20	20	20	20	20	20
5	5	5	5	5	5	5	5	5	-	-	-	-	-	-
(1)	(1)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(3)	(3)	(3)	(3)	(3)	(3)
(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)
0	(1)	(2)	(2)	(3)	(3)	(3)	(4)	(4)	(4)	(3)	(3)	(4)	(4)	(4)
6	16	18	19	20	20	20	21	21	21	18	18	17	17	17
229	8	3	3	2	2	2	2	2	2	-	-	-	-	-
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
229	8	3	3	2	2	2	2	2	2	0	0	0	0	0
6	21	37	53	68	83	98	112	126	139	150	160	169	178	186
229	236	239	242	243	244	246	247	248	249	249	249	249	249	249
(223)	(215)	(202)	(189)	(175)	(161)	(148)	(135)	(122)	(110)	(99)	(89)	(80)	(71)	(63)
-														

0.03 0.09 0.15 0.22 0.28 0.34 0.40 0.45 0.51 0.56 0.60 0.64 0.68 0.71 0.75

1.00

Moraviantown
Project Year **(\$000's)**

Cash Inflow	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Revenue	12	12	12	12	12	6	6	6	6	6	6	6	6	6	6
System Expansion Surcharge (SES)	20	20	20	20	20	15	10	10	10	10	10	10	10	10	10
Municipal Financial Support	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Expenses:															
O & M Expense	(3)	(3)	(3)	(3)	(3)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Municipal Tax	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)
Income Tax	(4)	(4)	(4)	(4)	(4)	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Net Cash Inflow	17	17	17	16	16	9	6	6	6	6	6	6	6	6	6

Cash Outflow															
Incremental Capital	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Change in Working Capital	0	0	0	0	0	(0)	(0)	0	0	0	0	0	0	0	0
Cash Outflow	0	0	0	0	0	(0)	(0)	0	0	0	0	0	0	0	0

Cumulative Net Present Value															
Cash Inflow	194	201	208	215	221	224	226	228	230	232	234	235	237	238	239
Cash Outflow	249	249	249	249	249	249	249	249	249	249	249	249	249	249	249
NPV By Year	(55)	(48)	(41)	(34)	(28)	(25)	(23)	(21)	(19)	(17)	(15)	(14)	(12)	(11)	(10)

Project NPV

Profitability Index															
By Year PI	0.78	0.81	0.84	0.86	0.89	0.90	0.91	0.92	0.92	0.93	0.94	0.94	0.95	0.96	0.96
Project PI															

Moraviantown											
Project Year	(\$000's)										
	31	32	33	34	35	36	37	38	39	40	
Cash Inflow											
Revenue	6	6	6	6	6	6	6	6	6	6	6
System Expansion Surcharge (SES)	10	10	10	10	10	10	10	10	10	10	10
Municipal Financial Support	-	-	-	-	-	-	-	-	-	-	-
Expenses:											
O & M Expense	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Municipal Tax	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)	(8)
Income Tax	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Net Cash Inflow	6	6	5	5	5	5	5	5	5	5	5
Cash Outflow											
Incremental Capital	-	-	-	-	-	-	-	-	-	-	-
Change in Working Capital	0	0	0	0	0	0	-	-	-	-	-
Cash Outflow	0	0	0	0	0	0	-	-	-	-	-
Cumulative Net Present Value											
Cash Inflow	240	242	243	244	245	246	246	247	248	249	249
Cash Outflow	249	249	249	249	249	249	249	249	249	249	249
NPV By Year	(8)	(7)	(6)	(5)	(4)	(3)	(2)	(2)	(1)	-	-

Moraviantown
(Project Specific DCF Analysis)
Stage 1 DCF - Listing of Key Input
Parameters, Values and Assumptions
(\$000'S)

Discounting Assumptions

Project Time Horizon

40 years commencing at facilities in-service date of
01 Dec 17

Discount Rate

Incremental after-tax weighted average
cost of capital of 5.10%

**Key DCF Input Parameters,
Values and Assumptions**

Net Cash Inflow:

Incremental Distribution Revenue:

General Service rates

System Expansion Surcharge (SES)

First Nations Financial Support

Term of SES

Term of Municipal Financial Support

Approved per EB-2016-0334 Effective January 1, 2017

\$0.23 / M3

Voluntary Financial Support

40 years

10 years

Operating and Maintenance Expense

Estimated incremental cost

Incremental Tax Expenses:

Municipal Tax

Income Tax Rate

Estimated incremental cost

26.50%

CCA Rates:

CCA Classes:

Eligible Capital Expenditure (ECE)

Class 51 (Distribution Mains)

Class 51 (Distribution Services)

Class 51 (Measuring & Regulating Equipment)

Declining balance depreciation rates by CCA class:

7%

6%

6%

6%

Cash Outflow:

Incremental Capital Costs Attributed

Refer to Schedule 5

Change in Working Capital

5.0513% applied to O&M

MORAVIANTOWN DESIGN AND PIPE SPECIFICATIONS
POLYETHYLENE PIPING

Design Specifications

Design Factor	- 0.40
Maximum Operating Pressure	- 550 kPa
Test Medium	- Air , Nitrogen, or Water
Minimum Test Pressure	- 770 kPa
Minimum Depth of Cover (General)	- 0.6 m
Minimum Depth of Cover (Road Crossings)	- 0.6 m
Minimum Depth of Cover (Water Crossings)	- 1.2 m

Pipe Specifications

Size	- NPS 4
SDR	- 11
Description	- C.S.A. Standard B137.4-13
Size	- NPS 2
SDR	- 11
Description	- C.S.A. Standard B137.4-13
Size	- NPS 1 ¼
SDR	- 10
Description	- C.S.A. Standard B137.4-13

GENERAL TECHNIQUES AND METHODS OF CONSTRUCTION

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. *Ontario Traffic Manual – Book 7 – Temporary Conditions* is followed as a minimum requirement for the purpose of traffic control.
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 as approved by the Municipality.

Stringing

7. The pipe is strung adjacent to the running line. 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

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

Burying

9. Pipe may be buried using either the trench method or the trenchless method. 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 trenching machine, plough, or hoe excavator depending upon the ground conditions. Provisions are made to allow residents access to their property, as required. Any drainage tiles that the owner is aware of should be marked and will be spotted. All marked drainage tiles that are cut during the trench excavation are flagged to signify that a repair is required. 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.**Trenchless Method:** Trenchless methods are alternate methods used to install pipelines under railways, roads, sidewalks, trees and lawns. There are two trenchless methods that could be used for the proposed pipeline, depending on the soil conditions, length and size of the installation. These methods are boring (auguring) and directional drilling.

Tie-Ins

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

Cleaning and Testing

11. To complete the construction, the pipeline is cleaned and tested in accordance with Union's specifications.

Restoration

12. The final activity is the restoration. The work area is leveled, the sod is replaced in lawn areas and other grassed areas are re-seeded with topsoil and grass seed. Where required, concrete, asphalt and gravel are replaced to return the areas to as close to the original conditions as possible.

Moraviantown Expansion Pipeline Construction Schedule

Task Name	2016			2017												2018		
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Environmental Assessments and Approvals																		
Engineering																		
Pre-Construction Survey																		
Material Acquisition																		
File Application																		
OEB Approval																		
Construction Survey																		
Construction and Testing																		
Clean-Up																		
In-Service																		

Moraviantown Natural Gas Pipeline Project

Environmental Protection Plan Update

Introduction

In July of 2015 Union Gas Limited (Union Gas) applied to the Ontario Energy Board (“OEB”) for its Community Expansion Program. In January of 2016 the OEB adjourned Union Gas’s application and initiated a generic hearing to review community expansion projects throughout Ontario. The OEB released its decision on the generic proceeding in November of 2016. After reviewing the November 2016 decision it was necessary for Union Gas to update its evidence to be consistent with the generic decision. The Moraviantown Natural Gas Pipeline Project (the Project) was one of the projects included in the Community Expansion Program.

Union Gas has been bringing, clean, reliable, and affordable natural gas service for more than a century to over 400 communities across Ontario and as part of its Community Expansion Program, is proposing to bring natural gas service to the community of Moraviantown.

This document will update the Environmental Protection Plan prepared in May 2015 for the Moraviantown Natural Gas Pipeline Project filed with the OEB as part of Union Gas’s Community Expansion Program.

Project Description

The Project consists of a proposed pipeline approximately 7.43 kilometres in length, including 3.18 kilometres of NPS (Nominal Pipe Size) 4 inch plastic pipeline (NPS 4 PE piping), 4 kilometres of NPS 2 inch plastic pipeline (NPS 2 PE piping), and 250 metres of 1 ¼ inch plastic pipeline (NPS 1 ¼ PE piping). Maps identifying the project location and running line are attached in Appendix A.

NPS 4 PE piping was originally proposed on School House Line from Knoll Road to Centre Road. Union Gas is now proposing NPS 2 PE piping for this section.

Environmental Planning Process

Union Gas initiated the Environmental Assessment (EA) process in May 2015 with the completion of an Environmental Protection Plan (EPP). The EPP was prepared to document a plan for the protection of the environment during construction of the natural gas pipeline, and more specifically:

- Describe the proposed work necessary for the Project;
- Describe the procedures that will be followed during construction of the facilities;
- Identify potential environmental impacts and recommend measures to minimize those impacts; and
- Describe public consultation opportunities.

The EPP was mailed to the Ontario Pipeline Coordinating Committee (OPCC), First Nations, and other relevant agencies for review on June 1st, 2015. Please see Appendix B for a summary of OPCC, First Nations, and agency comments and Union Gas's subsequent responses regarding the EPP and the Project in general. There are no outstanding issues from the OPCC review.

Environmental Features Along the Route of the Proposed Pipeline

Archaeology

Union Gas retained the services of D.R. Poulton & Associates Inc. to complete Stage 1 and 2 archaeological assessments for the Project in accordance with the Ministry of Tourism, Culture and Sport (MTCS) guidelines. No archaeological remains were documented in the course of the archaeological assessments. Approval was received and the Stage 1 – 2 Archaeological Assessment Report was entered into the Ontario Public Register of Archaeological Reports on July 12th, 2016. The approval letter recommended that the proposed 250 metres of 1 ¼ inch pipeline on Lunaapeew Road be subject to a Stage 2 archaeological survey, which will be completed in spring 2017.

First Nations Monitors from the Delaware Nation at Moraviantown, Walpole Island First Nation, and the Chippewas of Kettle and Stony Point participated during the Stage 2 survey on October 16th, 2015. First Nations Monitors will again be invited to participate in the Stage 2 survey of the proposed pipeline on Lunaapeew Road.

Cultural Heritage

Union Gas retained the services of Stantec Consulting Ltd. to complete an overview of the heritage resources along the proposed pipeline route to ensure built heritage resources and cultural heritage landscapes are not impacted by the Project. The Overview of Cultural Heritage Resources Report concluded that impacts are not anticipated to cultural heritage resources. The MTCS reviewed and accepted this report on February 26th, 2016.

Natural Environmental Features

Union Gas retained the services of Neegan Burnside Ltd. to complete an Environmental Constraints Screening Report for the Project. The report provided a description of the terrestrial and aquatic environments, a list of endangered and threatened species in the vicinity of the proposed pipeline route, and recommended mitigation measures to avoid/minimize impacts to such environments and species. Union Gas will implement the recommended mitigation measures as well as Union Gas's standard mitigation measures for pipeline construction to ensure the Project does not negatively impact the natural environment.

Union Gas and Neegan Burnside Ltd. will review the route of the proposed pipeline again to ensure that there have been no significant changes to the environmental features identified during the original EA.

Summary

This update has been prepared as an update to the original EPP. All of the mitigation measures recommended in the EPP, Stage 1 – 2 Archaeological Assessment Report, Overview of Cultural Heritage Resources Report, and Environmental Constraints Screening Report will be adhered to during construction. The 250 m of 1 ¼ inch piping will be subject to a Stage 2 archeological survey before construction commences and the pipeline route will be reviewed in the field to ensure there are no changes to environmental features which require additional mitigation measures to be implemented.

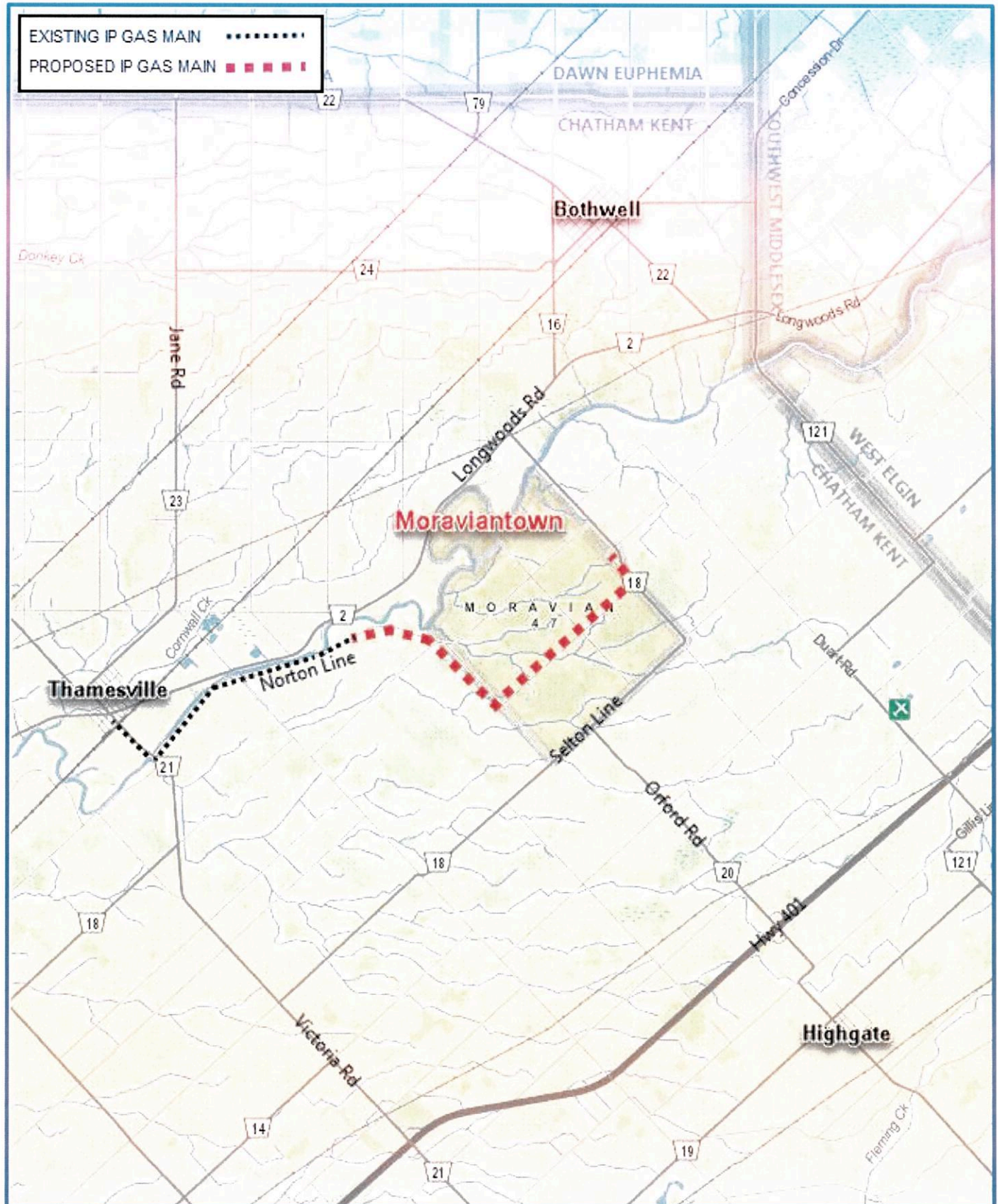
All comments received from the OPCC, First Nations, and other relevant agencies regarding the Project and/or the EPP have been noted and addressed as required.

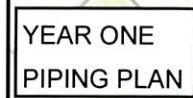
With the implementation of the recommended mitigation measures, and ongoing agency communication, the Moraviantown Natural Gas Pipeline Project is not anticipated to have any significant adverse environmental or socio-economic impacts.

APPENDIX A

PROJECT MAPPING

MORAVIANTOWN – Community Expansion Key Plan





APPENDIX B

OPCC REVIEW SUMMARY

OPCC Review Summary

Moraviantown Natural Gas Pipeline Project

AGENCY	COMMENT	RESPONSE
Technical Standards & Safety Authority (TSSA) Email dated June 19, 2015	<p>The documentation submitted is compliant with our regulation and the documentation has been submitted to Mr. Mike Davis, Regional Supervisor, TSSA Inspection.</p> <p>The construction and/or commissioning of the extensions may be subject to an inspection.</p>	Not Required.
Ministry of Tourism, Culture & Sport (MTCS) Email and letter dated August 6, 2015	<p>Email containing a letter to Zora Crnojacki:</p> <p>Provide MTCS with any archaeological assessment and/or cultural heritage assessment reports and/or technical heritage study prior to issuance of a Notice of Completion.</p> <p>Engagement with Aboriginal communities should include a discussion about known or potential cultural heritage resources and other local heritage organization should be consulted as required.</p> <p>Avoid assuming there will be no impacts to archaeological resources; recommend including the weighting of actual or potential impacts in the evaluation of alternatives.</p> <p>The MTCS Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes should be completed and included in the EA report or file.</p> <p>A Heritage Impact Assessment is recommended if potential or known heritage resources exist.</p> <p>MTCS requests continued circulation through the EA process.</p>	<p>Email containing a letter dated November 23, 2015:</p> <p>Engagement with Delaware Nation at Moraviantown has been ongoing from the onset of the Stage 1 Archaeological Assessment and cultural heritage study.</p> <p>Archaeological monitors from Delaware Nation at Moraviantown, Walpole Island First Nation, and Chippewas of Kettle and Stony Point First Nation were involved in Stage 2 surveys.</p> <p>No sites have been discovered and the Stage 1 and 2 Archaeological Assessment Report is being finalized for submission to the MTCS.</p> <p><i>An Overview of Heritage Resources</i> report is being finalized and the <i>MTCS Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes</i> has been completed.</p>

Tomek, Evan

From: Oscar Alonso <oalonso@tssa.org>
Sent: June-19-15 4:00 PM
To: Tomek, Evan; Mike Davis
Cc: Zora Crnojacki
Subject: Community Expansion Program. Projects for Walpole Island and Township and Moraviantown.

Dear Mr. Tomek,

Thanks for the information on the Community Expansion Program for these two projects. The documentation submitted is compliant with our regulation and the documentation has been submitted to Mr. Mike Davis, Regional Supervisor, TSSA Inspection.

The construction and or commissioning of the extensions may be subject to an inspection.

Yours truly,

Oscar Alonso, P.Eng.,
Fuels Safety Engineer

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Tomek, Evan

From: Muller, Joseph (MTCS) <Joseph.Muller@ontario.ca>
Sent: August-06-15 4:13 PM
To: zora.crnojacki@ontarioenergyboard.ca
Cc: Tomek, Evan
Subject: Union Gas Limited Community Expansion Program
Attachments: UG Moraviantown - Chatham-Kent 2015-08-06 CSU MTCS Comments.pdf; UG Walpole Island FN -2015-08-06 CSU MTCS Comments.pdf

Hello Zora Crnojacki:

Please find attached our comments from the Culture Services Unit at the Ministry of Tourism, Culture and Sport on the following projects:

Moraviantown Natural Gas Pipeline Project; and,
Walpole Island Natural Gas Pipeline Project.

I may be contacted for any questions or discussion of our comments on these files. Thank-you for your assistance,

Joe

Joseph Muller, RPP, MCIP

Heritage Planner
Ministry of Tourism, Culture and Sport
Culture Division | Programs and Services Branch | Culture Services Unit

401 Bay Street, Suite 1700
Toronto, Ontario M7A 0A7

Tel. 416.314.7145 | Fax. 416.314.7175

**Ministry of Tourism,
Culture and Sport**

Culture Services Unit
Programs and Services Branch
401 Bay Street, Suite 1700
Toronto ON M7A 0A7
Tel: 416 314 7145
Fax: 416 212 1802

**Ministère du Tourisme,
de la Culture et du Sport**

Unité des services culturels
Direction des programmes et des services
401, rue Bay, Bureau 1700
Toronto ON M7A 0A7
Tél: 416 314 7145
Télé: 416 212 1802



August 6, 2015 (EMAIL ONLY)

Zora Crnojacki, Coordinator
Ontario Pipeline Coordination Committee
Ontario Energy Board
Suite 2601, 2300 Yonge Street
Toronto, ON M4P 1E4
E: zora.crnojacki@ontarioenergyboard.ca

RE: MTCS file #: 0002992
Proponent: Union Gas
Subject: Environmental Protection Plan
Moraviantown Natural Gas Pipeline Project
Location: Delaware Nation, Municipality of Chatham-Kent, Ontario

Dear Zora Crnojacki:

The Ministry of Tourism, Culture and Sport (MTCS) is in receipt of the Environmental Protection Plan for the above project. MTCS's interest in this EA project relates to its mandate of conserving Ontario's cultural heritage, which includes:

- Archaeological resources, including land-based and marine;
- Built heritage resources, including bridges and monuments; and,
- Cultural heritage landscapes.

Under the ER process for Ontario Energy Board projects, the proponent is required to determine a project's potential impact on cultural heritage resources. MTCS should be provided with any archaeological assessment and/or cultural heritage assessment reports completed for the above project prior to issuance of a Notice of Completion.

While some cultural heritage resources may have already been formally identified, others may be identified through screening and evaluation. Aboriginal communities may have knowledge that can contribute to the identification of cultural heritage resources, and we suggest that any engagement with Aboriginal communities includes a discussion about known or potential cultural heritage resources that are of value to these communities. Municipal Heritage Committees, historical societies and other local heritage organizations may also have knowledge that contributes to the identification of cultural heritage resources.

Archaeological Resources

It is understood from the Environmental Protection Plan that a Stage 1 archaeological assessment (AA) shall be undertaken by an archaeologist licenced under the *OHA*, who is responsible for submitting the report directly to MTCS for review. While construction is described as remaining entirely within the disturbed portion of the road allowance, we note that many of these corridors comprise original concession and early settlement roads, built prior to archaeological assessments, and so may intersect as yet unregistered archaeological sites. The scope of soil disturbance related to the project also includes proposed regulating stations and may involve temporary staging and stockpiling areas and access routes which may be relatively undisturbed. As a result, we advise against presuming that there will be no impacts to archaeological resources and instead recommend including the weighting of actual or potential impacts in the evaluation of alternatives.

Built Heritage and Cultural Heritage Landscapes

The Environmental Protection Plan confirms that the study area will be screened for potential built heritage and cultural heritage landscapes. The MTCS *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes* should be completed to help determine potential impacts to impact cultural heritage resources. Delaware Nation and the Clerk for the Municipality of Chatham-Kent can provide information on property registered or designated under the *Ontario Heritage Act*. Municipal Heritage Planners can also provide information to complete the checklist.

If potential or known heritage resources exist, MTCS recommends that a Heritage Impact Assessment (HIA), prepared by a qualified consultant, should be completed to assess potential project impacts. Our Ministry's *Info Sheet #5: Heritage Impact Assessments and Conservation Plans* outlines the scope of HIAs. Any HIA completed is to be sent to MTCS for review, and made available to local organizations or individuals who have expressed interest in heritage.

Environmental Assessment Reporting

All technical heritage studies and their recommendations are to be addressed and incorporated into EA projects. Technical heritage studies completed for the EA project are to be provided to MTCS before a Notice of Completion is issued. If screening has identified no known or potential cultural heritage resources, or no impacts to these resources, the completed checklists and supporting documentation should be included in the EA report or file.

MTCS requests continued circulation through the EA process: I may be contacted for any questions or clarification.

Sincerely,

Joseph Muller, RPP/MCIP
Heritage Planner
Joseph.Muller@Ontario.ca

Copied to: Ryan Park, Senior Environmental Planner, Union Gas

It is the sole responsibility of proponents to ensure that any information and documentation submitted as part of their EA report or file is accurate. MTCS makes no representation or warranty as to the completeness, accuracy or quality of the any checklists, reports or supporting documentation submitted as part of the EA process, and in no way shall MTCS be liable for any harm, damages, costs, expenses, losses, claims or actions that may result if any checklists, reports or supporting documents are discovered to be inaccurate, incomplete, misleading or fraudulent.

MTCS must be notified if archaeological resources are impacted by EA project work. All activities impacting archaeological resources must cease immediately, and a licensed archaeologist is required to carry out an archaeological assessment in accordance with the Ontario Heritage Act and the Standards and Guidelines for Consultant Archaeologists.

If human remains are encountered, all activities must cease immediately and the local police as well as the Cemeteries Regulation Unit of the Ministry of Government and Consumer Services must be contacted. In situations where human remains are associated with archaeological resources, MTCS should also be notified to ensure that the site is not subject to unlicensed alterations which would be a contravention of the Ontario Heritage Act.

Tomek, Evan

From: Tomek, Evan
Sent: November-23-15 12:42 PM
To: 'Joseph.Muller@Ontario.ca'
Subject: Community Expansion Program Update
Attachments: MTCS Moraviantown Update.pdf; MTCS Walpole Update.pdf; MTCS Milverton Update.pdf; MTCS KP LS Update.pdf

Good Afternoon Joseph,

Thank you for your reviews of Union Gas' Environmental Protection Plans for our Moraviantown, Walpole Island, Milverton, and Kettle Point / Lambton Shores Natural Gas Pipeline Projects.

I have attached four letters providing an update regarding our Archaeology and Cultural Heritage works for each project.

I appreciate your time with these reviews, and if you have any questions don't hesitate to ask.

Thanks,

Evan

Evan Tomek, BES
Environmental Planner *on behalf of*
Union Gas Limited | A Spectra Energy Company
745 Richmond Street | Chatham, ON N7M 5J5
Tel: 519.436.2460 ext 5236904
Cell: 226.229.9598
email: etomek@uniongas.com





uniongas

A Spectra Energy Company

November 23, 2015 (VIA EMAIL)

Joseph Muller, Heritage Planner
Ministry of Tourism, Culture and Sport
Culture Services Unit
Programs and Services Branch
401 Bay Street, Suite 1700
Toronto, ON M7A 0A7
Email: Joseph.Muller@Ontario.ca

RE: Moraviantown Natural Gas Pipeline Project

Dear Mr. Muller,

Thank you for your review of the report entitled, *Moraviantown Natural Gas Pipeline Project Environmental Protection Plan, May 2015*, and subsequent letter dated August 6, 2015. We appreciate you taking the time to review the report and provide important feedback.

Union Gas Limited (Union) retained the services of D.R. Poulton & Associates to complete a Stage 1 and 2 Archaeological Assessment of the proposed pipeline project area to identify potential impacts to archaeological resources. Members of Delaware Nation at Moraviantown were involved from the onset of the Stage 1 archaeological survey to contribute to the identification of potential archaeological resources on June 26, 2015 during a meeting and tour of the proposed pipeline route. Archaeological monitors from Delaware Nation at Moraviantown, Walpole Island First Nation, and Chippewas of Kettle and Stony Point were also present for a Stage 2 archaeological survey on October 16, 2015. Currently, the Stage 2 archaeological survey of the proposed pipeline route has been completed with no sites discovered. The Stage 1 and 2 Archaeological Assessment report is being finalized for submission to the Ministry.

Union retained the services of Stantec Consulting Ltd. (Stantec) to identify potential built heritage and cultural heritage landscapes in the project area. Stantec has consulted the Municipality of Chatham-Kent, the Ontario Heritage Trust, and worked with Delaware Nation at Moraviantown to identify such features. Currently, the *Overview of Heritage Resources* report is being finalized for submission to the Ministry and the Ministry's *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes* has been completed.

Thank you again for your time and we will notify you of the submission of the aforementioned reports. If you have any questions do not hesitate to ask.

Yours Truly,

Evan Tomek
Environmental Planner
Union Gas Limited
Tel: 519.436.2460 ext 5236904
Email: etomek@uniongas.com

UNION GAS LIMITED PRINCE TOWNSHIP PROJECT

Contents

PROJECT SUMMARY	2
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Schedules

Schedule 1	Map of Proposed Facilities
Schedule 2	Customer Attachment Forecast
Schedule 3	Letter of Support
Schedule 4	Schematic of Proposed Project
Schedule 5a	Capital Costs for first year
Schedule 5b	Capital Costs for 10 years
Schedule 6	Project DCF Analysis
Schedule 7	DCF Analysis & Parameters
Schedule 8	Design and Pipeline Specifications
Schedule 9	Union's Standard Construction Methods
Schedule 10	Proposed Construction Schedule
Schedule 11	Environmental Protection Plan Update

PROJECT SUMMARY

1. This evidence will update the evidence filed by Union at Exhibit A, Tab 2, Section D of the EB-2015-0179 proceeding.
2. Municipal Officials, Residents, and Business Owners in Prince Township ["Project Area"], in the District of Algoma, have requested natural gas service from Union Gas Limited ["Union"].
3. In order to meet the demands for natural gas in this area, Union is requesting pursuant to Section 90 (1) of the Ontario Energy Board Act, approval from the Ontario Energy Board ["OEB"] for Leave to Construct pipelines in Prince Township and the City of Sault Ste Marie ["Project"]. Union is also requesting an order from the OEB pursuant to section 36 (1), as described in earlier sections of this evidence.
4. Union has identified a specific area where construction of pipelines will take place: Town Line Road, Second Line W., Base Line Road, Airport Road, Gagnon Road, Walls Road, Deans Road, Mountainview Drive, Heywood Road, Douglas Drive, Ironside Drive, Pinder Drive and Harper Street.
5. A map showing the location of Prince Township can be found at Schedule 1.
6. Union currently holds the Certificate of Public Convenience and Necessity (EB-2013-0108) and Franchise Agreement (EB-2013-0107), for Prince Township in the District of Algoma. Union also hold a Certificate of Public Convenience and Necessity (EBC 63) and Franchise Agreement (RP-2003-0176/EB-2003-0218) for the City of Sault Ste Marie.
7. The route of the Proposed Facilities was selected in order to optimize economic benefits and social features while minimizing environmental impacts.

8. If the Applications are approved, Union forecasts that 291 customers in the Project Area will have natural gas service by year 10 of the Project.
9. The total capital cost of the Proposed Facilities for the first 10 years of the Project is \$2,720,959. These costs include pipeline costs, station costs, and the cost to serve customers.
10. The Project has a net present value ["NPV"] of \$10,000 and a profitability index ["PI"] of 1.01.
11. The Municipality has agreed to a financial contribution to the Project of \$12,300/year for the first 10 years of the Project.
12. An Environmental Protection Plan ["EPP"] for the Project was prepared by Union's Environmental Planning Department in 2015. The comments of various provincial and municipal agencies and the public have been sought and considered in the development of the EPP. Union's standard construction procedures, combined with the appropriate supplemental mitigation measures recommended in the EPP, will be employed to address environmental and public concerns. An update to the original EPP was prepared in 2017 and can be found at Schedule 11.
13. Construction of the Proposed Facilities for the Project is expected to begin in the summer of 2017 with an in service date of December 2017. Services will be constructed for the first 10 years of the Project.
14. No provincial grants or aids to construct are required for the Project.

MARKET PROFILE

Community Profile

15. Prince Township is located to the west and north of the City of Sault Ste. Marie, near the Sault Ste. Marie airport. The Township is on the shores of Lake Superior and the St. Mary's River.

16. The Township has 455 residential dwellings and a population of 1010. The Township has several farms, and a significant amount of forested areas. The largest number of residents can be found in Gros Cap, which is located at the extreme west end of Second Line.
17. There are currently a total of 370 existing residential dwellings and 5 small and medium sized commercial customers in the Project Area which could potentially be served with natural gas. Union expects 20 new residential dwellings will be constructed over the first 10 years of the Project.

Residential Survey

18. To update the telephone survey that was completed in 2015 a new survey was completed for the Project Area in 2017. The survey informed residents about the Project, estimates of the cost to convert to natural gas, and information regarding a surcharge to contribute towards the cost of the Project. The survey also requested information pertaining to dwelling characteristics, use of dwelling, current fuel type and interest in converting to natural gas-fuelled appliances.
19. Of the 370 existing residential customers in the Project Area, 132 have completed the survey, by telephone, representing a 36% response rate.

Customer Attachment Forecast

20. Union is forecasting a total of 286 residential and 5 small commercial customers will be attached by the tenth year of the Project as outlined in the customer attachment forecast in Schedule 2.
21. For the Top 3 box scores (extremely likely, very likely, and likely to convert), the results of the telephone survey described above indicate that 72% of the people surveyed are interested in obtaining natural gas service. The telephone survey provided residents information about the expansion surcharge.

22. Union also asked participants of the survey, who were interested in converting, the timing of when they would attach, and 97% indicated they would do so in the first three years. Union has taken a conservative approach and have spread the attachments over ten years, which is reflected in Schedule 2.
23. Union has made the assumption that 100% of the commercial customers will attach in the first two years of the Project.
24. Union has also reviewed the approved municipal plan and had discussions with municipal officials related to new residential attachments in the Project Area. It is expected that any new residences would attach to natural gas service and this has been included in the attachment forecast.
25. Union has received unanimous support from The Corporation of the Township of Prince. The letter of support for the Project is included in Schedule 3.

PROPOSED FACILITIES

26. As part of the Project, pipelines will be constructed on Town Line Road, Second Line W., Base Line Road, Airport Road, Gagnon Road, Walls Road, Deans Road, Mountainview Drive, Heywood Road, Douglas Drive, Ironside Drive, Pinder Drive and Harper Street. A schematic drawing showing the Project is provided in Schedule 4.

PROJECT COSTS

27. The total estimated cost for the Proposed Project is \$2,720,959 for the first 10 years of the Project. This cost includes all pipeline costs of \$1,968,798 and the cost of services of \$752,161 for the first 10 years of the Project.
28. The estimated first year capital costs for the construction of the Proposed Facilities including service costs are provided at Schedule 5a. The estimated cost covers all costs related to

materials, construction and labour required to construct distribution mains, regulating stations, and environmental costs.

29. A year by year breakdown of the proposed capital costs of the Project for the first 10 years of the Project can be found at Schedule 5b.

ECONOMIC FEASIBILITY

30. The Proposed Facilities are required in order to expand natural gas distribution to the Project Area.
31. A standalone Discounted Cash Flow (“DCF”) analysis was completed for the proposed expansion. Union has employed an economic feasibility test consistent with the Board’s recommendations in the E.B.O. 188 Report on Natural Gas System Expansion.
32. The DCF can be found at Schedule 6. This Schedule indicates a Net Present Value (“NPV”) of \$10,000 and Profitability Index (“PI”) of 1.00.
33. The DCF is based on capital of \$2,720,959. Capital used in the DCF can be found in Schedule 5(a) and 5(b).
34. The DCF includes the collection of the System Expansion Surcharge (“SES”) at a rate of \$0.23 per m³. The SES term will have a termination date as of the end of the calendar year (Dec 31 2039); approximately 22 years and 1 month from the forecast in-service date of Dec 1 2017.
35. The municipal financial contribution to the project is \$12,300 per year for 10 years.
36. No upstream reinforcement is required to complete this project.
37. Schedule 7 provides the key inputs, parameters and assumptions used in completing the DCF

analysis.

38. No provincial grants or aids to construct are required for this Project.

DESIGN AND CONSTRUCTION

39. The design and pipe specifications are outlined in Schedule 8. 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.
40. All polyethylene pipe and fittings will be manufactured and certified in accordance with the *Canadian Standards Association B137.4-13 Polyethylene (PE) Piping systems for Gas Services*. The pipe specifications are designed to provide the maximum operating pressure of 550 kPa. The pipeline will be tested in accordance with the requirements of the Ontario Regulation 210/01.
41. The minimum depth of cover to the top of the pipe and pipe appurtenances will be in accordance with the requirements of *Clause 12.4.7 and 12.4.8 of the CSA Z662-15* for polyethylene piping.

Construction Procedures and Project Schedule

42. The Proposed Facilities will be constructed using Union's standard practices and procedures and will be in compliance with the mitigation measures identified in the Environmental Protection Plan ["EPP"]. Schedule 9 provides a summary of Union's standard construction methods. Union's construction procedures are continually updated and refined to minimize potential impacts to the lands and the public.
43. Material is readily available for the Project and Union foresees no problem in obtaining a

contractor to complete the proposed construction. The EPP will be provided to the contractor.

44. Schedule 10 provides the proposed construction schedule for the Project. Construction of the Proposed Facilities is expected to begin in the summer of 2017 with an in service date of December 2017. Services will be constructed for the first 10 years of the Project.
45. Approvals are pending from the Ministry of Natural Resources and Forestry, the Sault Ste Marie Regional Conservation Authority and Prince Township.

ENVIRONMENTAL MATTERS

46. The original EPP for the proposed pipeline was prepared by Union's Environmental Planning Department in 2015 and was filed with the Board as Exhibit A, Tab 2, Section D, Schedule 11 as part of the EB-2015-0179 proceeding. The EPP was prepared to meet the intent of the Board's document *"Environmental Guidelines for Locating, Constructing and Operating Hydrocarbon Pipelines in Ontario"* [2011]. An update to the original EPP was prepared in 2017 in anticipation of the Project being constructed in 2017 and can be found at Schedule 11.
47. The objectives of the EPP are to:
 - a) document existing environmental features;
 - b) identify agency, First Nation, Métis Nation of Ontario and public concerns;
 - c) identify potential environmental impacts as a result of construction;
 - d) present mitigation techniques to minimize environmental impacts; and
 - e) provide pipeline contractors and environmental inspectors involved in the construction of the pipeline with general and site-specific guidelines for environmental protection that

supplement Union's construction specifications.

48. The original EPP was prepared before the scope of the Project was finalized. As such, some areas shown in the original EPP may not be included in the Project.
49. All pipelines will be constructed in the manner recommended and described in the Board document *"Environmental Guidelines for Locating, Constructing and Operating Hydrocarbon Pipelines in Ontario"*.
50. A copy of the original EPP has been submitted to the Ontario Pipeline Coordinating Committee ("OPCC"), local municipalities government agencies, First Nations and the Métis Nation of Ontario. A summary of comments and Union's response can be found in the EPP update.
51. There are fourteen watercourse crossings associated with this Project. Union will follow all permit conditions from the Regulating Agency.
52. When the Project is constructed, the most up-to-date construction specifications will be followed.
53. Union will ensure that the recommendations in the EPP, commitments and the conditions of approval are followed. An environmental inspector will be assigned to the project to ensure that all activities comply with all of the Board's conditions of approval.
54. The results of the EPP and update indicate that the environmental and socio-economic effects associated with construction of the project are generally short-term in nature and minimal. There are no significant cumulative effects as a result of this pipeline construction.

LAND MATTERS

55. All of the Proposed Facilities will be located within road allowances. No permanent or

temporary land rights will be required.

INDIGENOUS AND MÉTIS CONSULTATION

56. Union has a long standing practice of consulting with First Nations and Métis, and has programs in place whereby Union works with them to ensure they are aware of Union's projects and have the opportunity to participate in both the planning and construction phases of the Project.
57. Union has an extensive data base and knowledge of First Nations and Métis organizations in Ontario and consults with the Tribal organizations and the data bases of the Ministry of Natural Resources, Ministry of Aboriginal Affairs, and Indigenous and Northern Affairs Canada to ensure consultation is carried out with the most appropriate groups.
58. Union has signed a General Relationship Agreement with the Métis Nation of Ontario which describes Union's commitments to the Métis when planning and constructing pipeline projects.
59. The following First Nations and Métis were notified regarding the Project.

Chief Dean Sayers Batchewana First Nation	Notification letters sent in May 2015 and February 2017
Chief Lyle Sayers Garden River First Nation	Notification letters sent in May 2015 and February 2017 Garden River First nation proved maps of Proposed Facilities in May 2015
President Kim Powley Historical SSM Métis Council	Notification letters sent in May 2015 and February 2017

60. Union continues to meet and consult with the First Nations and Métis organizations on the expansion of natural gas facilities in Prince Township.

61. During construction, Union has inspectors in the field who are available to First Nation's and Métis organization as a primary contact to discuss and review any issues that may arise during construction.
62. When Union completes the necessary archaeological assessments for the Project, Union will consult with and provide the result of the surveys to any First Nations or Métis upon their request.

Prince Township – Community Expansion Key Plan



Prince Township Attachment Forecast

Classification	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total	Ultimate Potential	Total Attachments % Potential
Residential Conversion	71	64	24	17	13	17	14	17	15	14	266	370	72%
Residential New	2	2	2	2	2	2	2	2	2	2	20	20	100%
Small Commercial	3	2	0	0	0	0	0	0	0	0	5	5	100%
Medium Commercial	0	0	0	0	0	0	0	0	0	0	0	0	#DIV/0!
Large Commercial	0	0	0	0	0	0	0	0	0	0	0	0	#DIV/0!
Seasonal (Grain Dryer)	0	0	0	0	0	0	0	0	0	0	0	0	#DIV/0!
Total	76	68	26	19	15	19	16	19	17	16	291	395	74%

Mayor: Ken Lamming

CAO/Clerk-Treasurer: Peggy Greco

March 9, 2017

Mr. James Whittaker
Manager, Community Expansion
P.O. Box 5353, Station A
109 Commissioners Rd. West
London, ON N6A 4P1

Dear Mr. Whittaker:

Re: EB-2015-0179 – Natural Gas Expansion

The purpose of this letter is to re-confirm the Township of Prince's support to the application by Union Gas in 2015, to the Ontario Energy Board (OEB), for expansion of services into our municipality. Prior to the application, in 2014, the Council gave its unanimous support of this expansion of natural gas in our community. Through our newsletter and surveys, we have been working with the community and Union Gas to see this expansion become a reality.

We do understand that as a result of the OEB decision, a system expansion surcharge will be required to assist with the cost of the expansion, but the energy savings would still be significant. As a reliable source of energy, natural gas offers lower cost and reduced green house gas emissions, compared to propane, heating oil and wood. We believe this would be beneficial both economically and environmentally for our residents.

In a public meeting held on February 28th, 2017 in our community hall, with a capacity crowd, the presentation by a team from Union Gas was well received. The community and council are anxious to see the expansion project move forward as soon as possible.

Premier Wynne indicated in her 2014 mandate letter that extending natural gas to underserved communities was a priority for the Province of Ontario. In 2015, the OEB asked for recommendations and suggestions for regulatory reform, and in 2016 released a decision on expanding to new communities.

The expansion of natural gas in Prince Township will make a significant contribution in achieving the Province's stated priority in terms of energy efficiency and standards.

We appreciate Union Gas' timely re-application for expansion to our community and we look forward to a speedy OEB approval so construction can take place this year. The Township has been waiting several years for the opportunity to access natural gas as an affordable, stable energy option. Many residents have converted their heating systems from oil or electric to propane in anticipation that natural gas would soon be available.

I have enclosed a copy of Council's resolution 2017-62, passed on February 28, 2017, reiterating their support of and commitment to the expansion of natural gas in Prince Township.

Sincerely,



Peggy Greco
CAO/Clerk-Treasurer

Enclosure
/pg

The Corporation of the Township of Prince
 3042 Second Line West,
 PRINCE TOWNSHIP, ON P6A 6K4
 Phone: 705-779-2992 Fax: 705-779-2725

COUNCIL RESOLUTION

Date: February 28, 2017

AGENDA ITEM

6

Resolution 2017-61	
Moved by: Councillor <i>M. Matthews</i>	Seconded by: Councillor <i>[Signature]</i>

Motion 2017-61

Moved by: Councillor M. Matthews

Seconded by: Councillor ~~Enzo Palumbo~~ *I. Chambers*

Be it resolved that this Council hereby accepts the presentation by Union Gas as information.

RESOLUTION RESULT				
<i>7</i>	CARRIED	Mayor & Council	YES	NO
	DEFEATED	Ken Lamming		
	DEFERRED	David Amadio		
	REFERRED	Ian Chambers		
	PECUNIARY INTEREST DECLARED	Michael Matthews		
	RECORDED VOTE (SEE RIGHT)	Enzo Palumbo		
	WITHDRAWN			
MAYOR: <i>[Signature]</i> Ken Lamming				

The above is a certified to be true copy of resolution number 2017-61

Peggy Greco

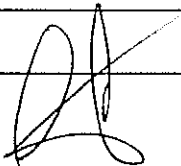
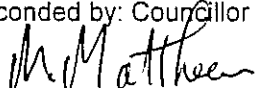
Peggy Greco
 CAO/CLERK-TREASURER

The Corporation of the Township of Prince
 3042 Second Line West,
 PRINCE TOWNSHIP, ON P6A 6K4
 Phone: 705-779-2992 Fax: 705-779-2725

COUNCIL RESOLUTION

Date: February 28, 2017


AGENDA ITEM

Resolution 2017-62	
Moved by: Councillor 	Seconded by: Councillor 

Moved by: Councillor I. Chambers Seconded by: Councillor M. Matthews

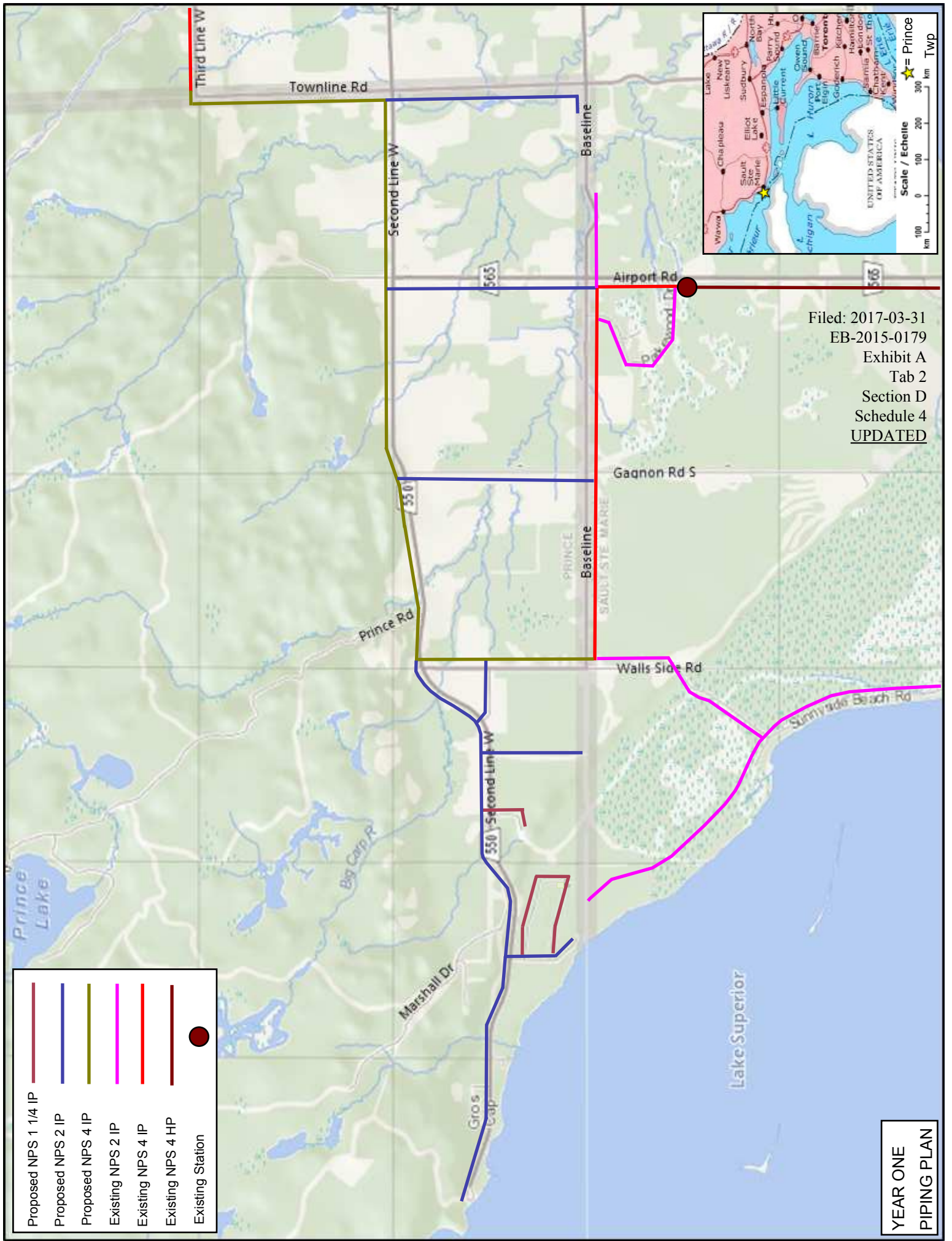
Be it resolved that this Council hereby supports the expansion of natural gas throughout the township of Prince; and

Further be it resolved that this council is committed, in principle, to a financial support in the form of a tax rebate.

RESOLUTION RESULT			YES	NO
<input checked="" type="checkbox"/>	CARRIED	Mayor & Council		
<input type="checkbox"/>	DEFEATED	Ken Lamming		
<input type="checkbox"/>	DEFERRED	David Amadio		
<input type="checkbox"/>	REFERRED	Ian Chambers		
<input type="checkbox"/>	PECUNIARY INTEREST DECLARED	Michael Matthews		
<input type="checkbox"/>	RECORDED VOTE (SEE RIGHT)	Enzo Palumbo		
<input type="checkbox"/>	WITHDRAWN			
MAYOR: Ken Lamming 				

The above is a certified to be true copy of resolution number 2017-62


 Peggy Greco
 CAO/CLERK-TREASURER



TOTAL ESTIMATED CAPITAL COSTS – YEAR 1

PRINCE TOWNSHIP EXPANSION PROJECT

Total Materials	\$151,280	\$151,280
Total Contract Cost	\$1,561,098	\$1,561,098
Total Company Costs	\$14,850	\$14,850
Miscellaneous (XRay, Construction Survey, Lands)	\$150,675	\$150,675
Station Labour and Materials	\$2,500	\$2,500
Contingency	\$88,395	\$88,395
Interest During Construction	\$0	
Service Costs	\$199,275	\$199,275
Total Estimated Capital Costs		\$2,168,073

Prince Township

Proposed Capital (\$000's)

Pipeline & Station Capital
Service , M&R Installation
Total

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
	1	2	3	4	5	6	7	8	9	10
Total										
1,969	1,969	-	-	-	-	-	-	-	-	-
752	199	177	66	49	38	49	41	49	43	41
2,721	2,168	177	66	49	38	49	41	49	43	41

Prince Township

<u>Project Year</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
<u>Cash Inflow</u>										
Revenue	18	52	75	85	93	101	109	117	125	132
System Expansion Surcharge (SES)	22	62	88	100	109	118	127	136	145	154
Municipal Financial Support	12	12	12	12	12	12	12	12	12	12
Expenses:										
O & M Expense	(3)	(8)	(12)	(14)	(15)	(17)	(19)	(21)	(23)	(25)
Municipal Tax	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)
Income Tax	7	7	(5)	(12)	(17)	(22)	(28)	(33)	(38)	(43)
Net Cash Inflow	45	113	146	159	169	179	189	199	210	219
<u>Cash Outflow</u>										
Incremental Capital	2,168	177	66	49	38	49	41	49	43	41
Change in Working Capital	0	0	0	0	0	0	0	0	0	0
Cash Outflow	2,168	178	67	49	38	49	41	49	44	41
<u>Cumulative Net Present Value</u>										
Cash Inflow	43	149	278	411	547	683	820	957	1,094	1,231
Cash Outflow	2,168	2,337	2,398	2,440	2,471	2,509	2,539	2,574	2,603	2,629
NPV By Year	(2,125)	(2,188)	(2,120)	(2,028)	(1,924)	(1,826)	(1,720)	(1,617)	(1,509)	(1,398)
<u>Project NPV</u>	10									
<u>Profitability Index</u>										
By Year PI	0.02	0.06	0.12	0.17	0.22	0.27	0.32	0.37	0.42	0.47
Project PI	1.00									

Prince Township

<u>Project Year</u>	<u>(\$000's)</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>20</u>
<u>Cash Inflow</u>											
Revenue		136	136	136	136	136	136	136	136	136	136
System Expansion Surcharge (SES)		158	158	158	158	158	158	158	158	158	158
Municipal Financial Support		-	-	-	-	-	-	-	-	-	-
Expenses:											
O & M Expense		(26)	(26)	(27)	(28)	(28)	(29)	(29)	(30)	(30)	(31)
Municipal Tax		(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)
Income Tax		(42)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)
Net Cash Inflow		214	212	210	208	207	205	204	202	201	199
<u>Cash Outflow</u>											
Incremental Capital		-	-	-	-	-	-	-	-	-	-
Change in Working Capital		0	0	0	0	0	0	0	0	0	0
Cash Outflow		0	0	0	0	0	0	0	0	0	0
<u>Cumulative Net Present Value</u>											
Cash Inflow		1,358	1,477	1,590	1,697	1,797	1,892	1,981	2,066	2,146	2,222
Cash Outflow		2,629	2,629	2,629	2,629	2,629	2,630	2,630	2,630	2,630	2,630
NPV By Year		(1,272)	(1,152)	(1,039)	(933)	(833)	(738)	(648)	(564)	(484)	(408)
<u>Project NPV</u>											
<u>Profitability Index</u>											
By Year PI		0.52	0.56	0.60	0.65	0.68	0.72	0.75	0.79	0.82	0.84
Project PI											

Prince Township

<u>Project Year</u>	<u>(\$000's)</u>	<u>21</u>	<u>22</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>28</u>	<u>29</u>	<u>30</u>
<u>Cash Inflow</u>											
Revenue		133	132	132	132	132	132	132	132	132	132
System Expansion Surcharge (SES)		156	151	22	-	-	-	-	-	-	-
Municipal Financial Support		-	-	-	-	-	-	-	-	-	-
Expenses:											
O & M Expense		(31)	(31)	(32)	(32)	(33)	(33)	(34)	(34)	(35)	(35)
Municipal Tax		(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)
Income Tax		(51)	(50)	(17)	(12)	(12)	(13)	(13)	(14)	(14)	(14)
Net Cash Inflow		194	189	93	75	74	73	72	71	70	69
<u>Cash Outflow</u>											
Incremental Capital		-	-	-	-	-	-	-	-	-	-
Change in Working Capital		0	0	0	0	0	0	0	0	0	0
Cash Outflow		0	0	0	0	0	0	0	0	0	0
<u>Cumulative Net Present Value</u>											
Cash Inflow		2,292	2,356	2,387	2,410	2,432	2,453	2,472	2,490	2,507	2,523
Cash Outflow		2,630	2,630	2,630	2,630	2,630	2,630	2,630	2,630	2,630	2,630
NPV By Year		(338)	(273)	(243)	(220)	(198)	(177)	(158)	(140)	(123)	(107)
<u>Project NPV</u>											
<u>Profitability Index</u>											
By Year PI		0.87	0.90	0.91	0.92	0.92	0.93	0.94	0.95	0.95	0.96
Project PI											

Prince Township

<u>Project Year</u>	<u>(\$000's)</u>	<u>31</u>	<u>32</u>	<u>33</u>	<u>34</u>	<u>35</u>	<u>36</u>	<u>37</u>	<u>38</u>	<u>39</u>	<u>40</u>
<u>Cash Inflow</u>											
Revenue		132	132	132	132	132	132	132	132	132	132
System Expansion Surcharge (SES)		-	-	-	-	-	-	-	-	-	-
Municipal Financial Support		-	-	-	-	-	-	-	-	-	-
Expenses:											
O & M Expense		(36)	(36)	(37)	(38)	(38)	(39)	(39)	(39)	(39)	(39)
Municipal Tax		(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)	(12)
Income Tax		(15)	(15)	(15)	(16)	(16)	(16)	(16)	(17)	(17)	(17)
Net Cash Inflow		69	68	67	66	65	65	64	64	64	64
<u>Cash Outflow</u>											
Incremental Capital		-	-	-	-	-	-	-	-	-	-
Change in Working Capital		0	0	0	0	0	0	-	-	-	-
Cash Outflow		0	0	0	0	0	0	-	-	-	-
<u>Cumulative Net Present Value</u>											
Cash Inflow		2,538	2,552	2,566	2,578	2,590	2,601	2,611	2,621	2,631	2,640
Cash Outflow		2,630	2,630	2,630	2,630	2,630	2,630	2,630	2,630	2,630	2,630
NPV By Year		(91)	(77)	(64)	(52)	(40)	(29)	(18)	(8)	1	10
<u>Project NPV</u>											
<u>Profitability Index</u>											
By Year PI		0.97	0.97	0.98	0.98	0.98	0.99	0.99	1.00	1.00	1.00
Project PI											

<p align="center">Prince Township (Project Specific DCF Analysis) Stage 1 DCF - Listing of Key Input Parameters, Values and Assumptions (\$000'S)</p>	
<p>Discounting Assumptions</p> <p>Project Time Horizon</p> <p>Discount Rate</p>	<p>40 years commencing at facilities in-service date of 01 Dec 17</p> <p>Incremental after-tax weighted average cost of capital of 5.10%</p>
<p>Key DCF Input Parameters, Values and Assumptions</p> <p>Net Cash Inflow:</p> <p>Incremental Distribution Revenue:</p> <p> General Service rates</p> <p> System Expansion Surcharge (SES)</p> <p> Municipal Financial Support</p> <p> Term of SES</p> <p> Term of Municipal Financial Support</p> <p>Operating and Maintenance Expense</p> <p>Incremental Tax Expenses:</p> <p> Municipal Tax</p> <p> Income Tax Rate</p> <p>CCA Rates:</p> <p> CCA Classes:</p> <p> Eligible Capital Expenditure (ECE)</p> <p> Class 51 (Distribution Mains)</p> <p> Class 51 (Distribution Services)</p> <p> Class 51 (Measuring & Regulating Equipment)</p>	<p>Approved per EB-2016-0334 Effective January 1, 2015</p> <p>\$0.23 / M3</p> <p>Voluntary Financial Support</p> <p>23 years</p> <p>10 years</p> <p>Estimated incremental cost</p> <p>Estimated incremental cost</p> <p>26.50%</p> <p>Declining balance depreciation rates by CCA class:</p> <p>7%</p> <p>6%</p> <p>6%</p> <p>6%</p>
<p>Cash Outflow:</p> <p>Incremental Capital Costs Attributed</p> <p>Change in Working Capital</p>	<p>Refer to Schedule 5</p> <p>5.0513% applied to O&M</p>

PRINCE TOWNSHIP DESIGN AND PIPE SPECIFICATIONS**POLYETHYLENE PIPING****Design Specifications**

Design Factor	- 0.40
Maximum Operating Pressure	- 550 kPa
Test Medium	- Air , Nitrogen, or Water
Minimum Test Pressure	- 770 kPa
Minimum Depth of Cover (General)	- 0.6 m
Minimum Depth of Cover (Road Crossings)	- 0.6 m
Minimum Depth of Cover (Water Crossings)	- 1.2 m

Pipe Specifications

Size	- NPS 4
SDR	- 11
Description	- C.S.A. Standard B137.4-13
Size	- NPS 2
SDR	- 11
Description	- C.S.A. Standard B137.4-13
Size	- NPS 1 ¼
SDR	- 10
Description	- C.S.A. Standard B137.4-13

GENERAL TECHNIQUES AND METHODS OF CONSTRUCTION

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. *Ontario Traffic Manual – Book 7 – Temporary Conditions* is followed as a minimum requirement for the purpose of traffic control.
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 as approved by the Municipality.

Stringing

7. The pipe is strung adjacent to the running line. 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

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

Burying

9. Pipe may be buried using either the trench method or the trenchless method. 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 trenching machine, plough, or hoe excavator depending upon the ground conditions. Provisions are made to allow residents access to their property, as required. Any drainage tiles that the owner is aware of should be marked and will be spotted. All marked drainage tiles that are cut during the trench excavation are flagged to signify that a repair is required. 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.**Trenchless Method:** Trenchless methods are alternate methods used to install pipelines under railways, roads, sidewalks, trees and lawns. There are two trenchless methods that could be used for the proposed pipeline, depending on the soil conditions, length and size of the installation. These methods are boring (auguring) and directional drilling.

Tie-Ins

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

Cleaning and Testing

11. To complete the construction, the pipeline is cleaned and tested in accordance with Union's specifications.

Restoration

12. The final activity is the restoration. The work area is leveled, the sod is replaced in lawn areas and other grassed areas are re-seeded with topsoil and grass seed. Where required, concrete, asphalt and gravel are replaced to return the areas to as close to the original conditions as possible.

Prince Township Expansion Pipeline Construction Schedule

Task Name	2016			2017												2018				
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Environmental Assessments and Approvals																				
Engineering																				
Pre-Construction Survey																				
Material Acquisition																				
File Application																				
OEB Approval																				
Construction Survey																				
Construction and Testing																				
Clean-Up																				
In-Service																				

Prince Township Natural Gas Pipeline Project

Environmental Protection Plan Update

Introduction

In July of 2015 Union Gas Limited (Union Gas) applied to the Ontario Energy Board (“OEB”) for its Community Expansion Program. In January of 2016 the OEB adjourned Union Gas’s application and initiated a generic hearing to review community expansion projects throughout Ontario. The OEB released its decision on the generic proceeding in November of 2016. After reviewing the November 2016 decision it was necessary for Union Gas to update its evidence to be consistent with the generic decision. The Prince Township Natural Gas Pipeline Project (the Project) was one of the projects included in the Community Expansion Program.

Union Gas Limited (Union Gas) has been bringing, clean, reliable, and affordable natural gas service for more than a century to over 400 communities across Ontario and as part of its Community Expansion Program, is proposing to bring natural gas service to the community of Prince Township.

This document will update the Environmental Protection Plan prepared in May 2015 for the Prince Township Gas Pipeline Project filed with the OEB as part of Union Gas’s Community Expansion Program.

Project Description

The Project consists of a proposed pipeline approximately 22,450 metres in length, including 7,885 metres of NPS (Nominal Pipe Size) 4 inch plastic pipeline (NPS 4 PE piping), 12,315 metres of NPS 2 inch plastic pipeline (NPS 2 PE piping), and 2,250 metres of 1 ¼ inch plastic pipeline (NPS 1 ¼ PE piping). Maps identifying the project location and running line are attached in Appendix A.

NPS 4 PE piping was originally proposed on Airport Road from Second Line West to Base Line. Union Gas is now proposing NPS 2 PE piping for this section.

Environmental Planning Process

Union Gas initiated the Environmental Assessment (EA) process in May 2015 with the completion of an Environmental Protection Plan (EPP). The EPP was prepared to document a plan for the protection of the environment during construction of the natural gas pipeline, and more specifically:

- Describe the proposed work necessary for the Project;
- Describe the procedures that will be followed during construction of the facilities;
- Identify potential environmental impacts and recommend measures to minimize those impacts; and
- Describe public consultation opportunities.

The EPP was mailed to the Ontario Pipeline Coordinating Committee (OPCC), First Nations, and other relevant agencies for review on June 1st, 2015. Please see Appendix B for a summary of OPCC, First

Nations, and agency comments and Union Gas's subsequent response regarding the EPP and the Project in general. There are no outstanding issues from the OPCC review.

Environmental Features Along the Route of the Proposed Pipeline

Archaeology

Union Gas retained the services of Woodland Heritage Services to complete an archaeological assessment for the Project in accordance with the Ministry of Tourism, Culture and Sport (MTCS) guidelines. The Stage 1 archaeological assessment determined that there were no areas of archaeological potential along the proposed pipeline route. The Stage 1 Archaeological Assessment Report was entered into the Ontario Public Register of Archaeological Reports on July 7th, 2016 and the approval letter recommended that no further archaeological assessment would be required.

Cultural Heritage

Union Gas retained the services of Unterman McPhail Associates to complete an evaluation of the heritage resources along the proposed pipeline route to ensure built heritage resources and cultural heritage landscapes are not impacted by the Project. The Cultural Heritage Resource Technical Memorandum concluded that no long-term direct or indirect impacts will have a negative effect on the existing cultural heritage landscape or built heritage resources. The MTCS reviewed and accepted this report on January 21st, 2016.

Natural Environmental Features

Union Gas retained the services of Neegan Burnside Ltd. to complete an Environmental Constraints Screening Report for the Project. The report provided a description of the terrestrial and aquatic environments, a list of endangered and threatened species in the vicinity of the proposed pipeline route, and recommended mitigation measures to avoid/minimize impacts to such environments and species. Union Gas will implement the recommended mitigation measures as well as Union Gas's standard mitigation measures for pipeline construction.

Union Gas and Neegan Burnside Ltd. will review the route of the proposed pipeline again to ensure that there have been no significant changes to the environmental features identified during the original EA.

Summary

This update has been prepared as an update to the original EPP. All of the mitigation measures recommended in the EPP, Stage 1 Archaeological Assessment Report, Cultural Heritage Resource Technical Memorandum, and Environmental Constraints Screening Report will be adhered to during construction. The pipeline route will also be reviewed in the field to ensure there are no changes to environmental features which require additional mitigation measures to be implemented.

All comments received from the OPCC, First Nations, and other relevant agencies regarding the Project and/or the EPP have been noted and addressed as required.

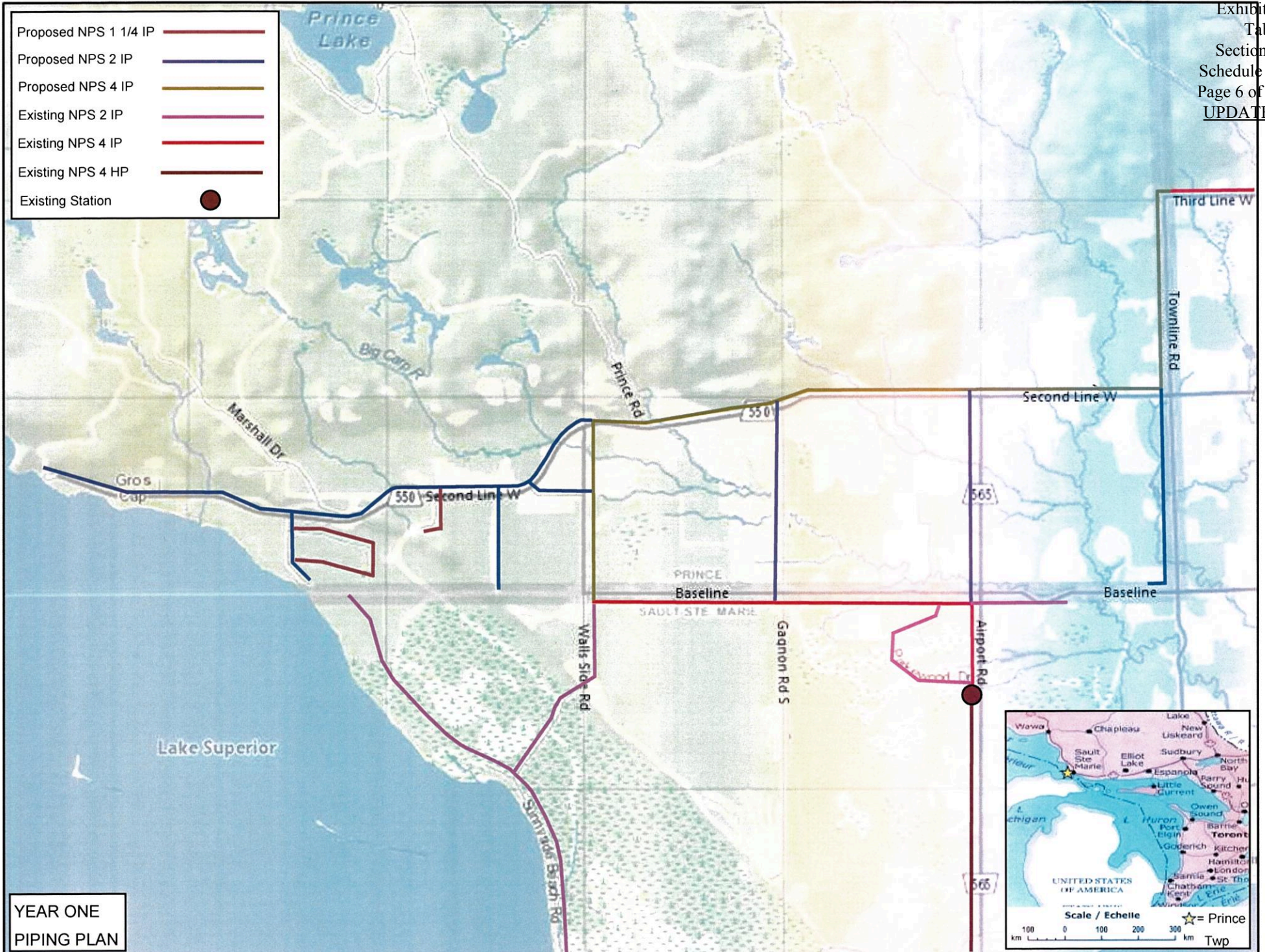
With the implementation of the recommended mitigation measures, and ongoing agency communication, the Prince Township Natural Gas Pipeline Project is not anticipated to have any significant adverse environmental or socio-economic impacts.

APPENDIX A

PROJECT MAPPING

Prince Township – Community Expansion Key Plan





APPENDIX B

OPCC REVIEW SUMMARY

OPCC Review Summary

Prince Township Natural Gas Pipeline Project

AGENCY	COMMENT	RESPONSE
Ministry of Environment and Climate Change Email dated June 8, 2015	Requested an electronic copy of the Environmental Protection Plan to circulate internally for comments.	Forwarded an electronic copy of the EPP on June 8, 2015.
Prince Township Phone Call from Peggy Greco on June 11, 2015	Asked if there was a plan to install piping on Marshall Drive. Requested an electronic copy of EPP to forward to councilors.	Union is proposing to service the first two houses on Marshall Drive. The other houses are too far apart and would have to pay to extend gas service down the road. Forwarded an electronic copy of the EPP on June 11, 2015.
Ministry of Tourism, Culture and Sport Email and letter Dated June 12, 2015	Email containing a letter to Zora Crnojacki: Archaeological Assessment and Heritage Impact Assessment should be undertaken by a licensed consultant archaeologist and qualified heritage consultant prior to any construction activity being undertaken. Suggestion to consult the Township and its municipal heritage committee, if one exists, concerning built heritage and cultural heritage landscapes. Notify MTCS if any of these buildings or landscapes have potential provincial significance.	Email containing a letter dated November 23, 2015: A Stage 1 Archaeological Assessment report was submitted on September 16, 2015 with no Stage 2 recommendation. A Cultural Heritage Assessment report is being finalized for submission to the MTCS and the MTCS <i>Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes</i> has been completed. The MTCS, Ontario Heritage Trust, and Prince Township was consulted during the cultural heritage study.
Technical Standards & Safety Authority (TSSA) Email dated June 19, 2015	The documentation submitted is compliant with our regulation and the documentation has been submitted to Mr. Mike Davis, Regional Supervisor, TSSA Inspection. The construction and/or commissioning of the extensions may be subject to an inspection.	Not required.
Ministry of Environment and Climate Change Email dated June 22, 2015	No internal feedback received yet, but the data seems okay. If feedback or concerns from others in the MOECC is received you will be notified.	Not required.
Technical Standards & Safety	Reviewed the EPP and the	Not required.

Authority (TSSA) Email dated July 6, 2015	<p>pipeline specifications.</p> <p>The polyethylene pipe specs meet the present code requirements. Although the pipeline is scheduled to be constructed in the summer of 2016, when the new CSA Z662-15 is expected to be in effect, we don't see any requirements in the new code that would impose changes in the pipe design, installation or operation.</p>	
Ministry of Natural Resources and Forestry (MNRF), Sault Ste. Marie Region Email dated August 5, 2015	<p>Reviewed the EPP and provided the following comments:</p> <ol style="list-style-type: none"> 1. Please identify the EA Act coverage in relation to the project and the process to be followed. Also, clearly demonstrate any requirements under the EA Act that will apply to all components of the project. 2. A work permit may be required to conduct work on Crown land and water crossings. Further information regarding the location of any Crown land and water crossing within the project area is required. 3. If tree clearing is required, it is recommend that the qualified ornithologist contact/consult the MNRF District prior to conducting surveys. <p>Recommended that you contact the MNRF district concerning potentially endangered bat species if tree clearing is required.</p> <ol style="list-style-type: none"> 4. An permit under the <i>Endangered Species Act, 2007 (ESA)</i> may be required. The consultant should contact the MNRF district office to discuss the <i>Endangered Species Act 2007</i> and the proposed works. The <i>Endangered</i> 	<p>Email response on August 14, 2015:</p> <ol style="list-style-type: none"> 1. The Prince Township Natural Gas Pipeline Project will be subject to the Ontario Energy Board Act and approval from the OEB is required before the project can proceed. An Environmental Protection Plan (EPP) has been completed to meet the intent of the Ontario Energy Board Environmental Guidelines for the Location Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario, 6th Edition 2011. 2. At this time all work is proposed within in the road allowance. Union or its Consultant will be in contact to discuss permit requirements. 3. Noted. Thank you. <p>Noted. Thank you. Also, a qualified terrestrial biologist has completed a review of the Natural Heritage Information Centre database that did not reveal any records of at risk bat species in the vicinity of the project. Union or its Consultant will contact MNRF for further discussion.</p> <ol style="list-style-type: none"> 4. Noted. Thank you.

	<i>Species Act, 2007</i> applies on both Crown and private lands.	
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Tomek, Evan

From: Shields, Walter (MOECC) <Walter.Shields@ontario.ca>
Sent: June-22-15 9:06 AM
To: Tomek, Evan
Subject: FW: Prince Township Natural Gas Pipeline Project

Hi Evan

Still no feedback yet, however I looked over your data and it seems okay, if I get feedback or concerns from others in the MOECC as noted below I will let you know.

Walter

Walter Shields
Tel: 705-942-6348
E-Mail: walter.shields@ontario.ca

From: Shields, Walter (MOECC)
Sent: June-17-15 1:55 PM
To: Shields, Walter (MOECC)
Subject: RE: Prince Township Natural Gas Pipeline Project

Hi Carrie
Any feedback yet.
Walter

Walter Shields
Tel: 705-942-6348
E-Mail: walter.shields@ontario.ca

From: Shields, Walter (MOECC)
Sent: June-08-15 3:49 PM
To: Hutchison, Carrie (MOECC); Tomek, Evan
Subject: FW: Prince Township Natural Gas Pipeline Project

Hi Carrie

How do we handle the attached request as noted in the cover letter.

Thanks Walter

Walter Shields
Tel: 705-942-6348
E-Mail: walter.shields@ontario.ca

From: Tomek, Evan [<mailto:ETomek@spectraenergy.com>]
Sent: June-08-15 3:26 PM
To: Shields, Walter (MOECC)
Subject: RE: Prince Township Natural Gas Pipeline Project

Hi Walter,

Here is the digital copy of the Environmental Protection Plan, and the Generic Sediment Control Plan for Horizontal Directional Drill (Appendix 3 of the EPP).

Thank you for your review of the EPP. Please contact me if you have any questions.

Evan Tomek, BES
Environmental Planner on behalf of
Union Gas Limited | A Spectra Energy Company
745 Richmond Street | Chatham, ON N7M 5J5
Tel: 519-436-2460 ext 5238904
Cell: 226-229-9598
email: ETomek@spectraenergy.com



From: Shields, Walter (MOECC) [<mailto:Walter.Shields@ontario.ca>]
Sent: June-08-15 3:21 PM
To: Tomek, Evan
Subject: Prince Township Natural Gas Pipeline Project

Hi Evan

Can you send me a digital copy of the Environmental Protection Plan, so I can send it for comments.

Thanks

Walter Shields
Senior Environmental Officer
Ministry of the Environment
70 Foster Drive, Suite 110
Sault Ste. Marie ON, P6A 6V4
Tel: 705-942-6348
Fax: 705-942-6327
E-Mail: walter.shields@ontario.ca

Tomek, Evan

From: Kirzati, Katherine (MTCS) [<mailto:Katherine.Kirzati@ontario.ca>]
Sent: June-12-15 9:54 AM
To: Tomek, Evan
Subject: 0002989 -Prince Twp -Union Gas Pipeline Project

Good morning:

Please find attached MTCS' acknowledgement letter on the above-noted file.

If you have any questions, do not hesitate to contact me.

Regards, Katherine
Katherine Kirzati

**Ministry of Tourism,
Culture and Sport**

Culture Services Unit
Programs and Services Branch
401 Bay Street, Suite 1700
Toronto ON M7A 0A7
Tel: 416 314 7265
Fax: 416 314 7175

**Ministère du Tourisme,
de la Culture et du Sport**

Unité des services culturels
Direction des programmes et des services
401, rue Bay, Bureau 1700
Toronto ON M7A 0A7
Tél: 416 314 7265
Téléc. 416 314 7175



12 June 2015

Zora Crnojacki
Coordinator
Ontario Pipeline Coordination Committee
Ontario Energy Board
2300 Yonge Street
26th Floor, Suite 2601
Toronto, ON M4P 1E4

Via E-mail

Dear Ms. Crnojacki:

Our File No. : 00002989
Proponent : Union Gas Limited
Subject : Prince Township Natural Gas Pipeline Project
Location : Township of Prince, District of Algoma

The Ministry of Tourism, Culture and Sport's interest in the above-noted project relates to our mandate of conserving, protecting and preserving Ontario's heritage, including archaeological resources, built heritage resources and cultural heritage landscapes.

Project Summary

This undertaking involves the construction of a lateral pipeline (approximately 22.3 km in length) from an existing 4-inch plastic pipeline in Sault Ste Marie to service 14 specific locations in Prince Township.

Comments

We note in the Environmental Protection Plan report, dated May 2015, that Union Gas will undertake an archaeological assessment and a heritage impact assessment. These should be conducted by a licensed consultant archaeologist and a qualified heritage consultant prior to any construction activity being initiated.

With respect to built heritage and cultural heritage landscapes, we suggest that the applicant also consult the Township and its municipal heritage committee, if one exists. Our office should be notified if any of these buildings or landscapes are identified as being of potential provincial significance.

If you have any questions, please do not hesitate to contact the undersigned.

Yours truly,
Katherine Kirzati
Heritage Planner
416.314.7643
katherine.kirzati@ontario.ca

c: Evan Tomek, Union Gas Limited

Tomek, Evan

From: Tomek, Evan
Sent: November-23-15 12:44 PM
To: 'Kirzati, Katherine (MTCS)'
Subject: Prince Township Update
Attachments: MTCS PT Update.pdf

Hi Katherine,

Thank you for your review of the Prince Township Natural Gas Pipeline Project Environmental Protection Plan. I have attached a letter containing an update regarding the archaeology and cultural heritage works associated with this project.
I appreciate your review, and if you have any questions don't hesitate to ask.

Thanks,

Evan

Evan Tomek, BES
Environmental Planner *on behalf of*
Union Gas Limited | A Spectra Energy Company
745 Richmond Street | Chatham, ON N7M 5J5
Tel: 519.436.2460 ext 5236904
Cell: 226.229.9598
email: etomek@uniongas.com





November 23, 2015 (VIA EMAIL)

Katherine Kirzati, Heritage Planner
Ministry of Tourism, Culture and Sport
Culture Services Unit
Programs and Services Branch
401 Bay Street, Suite 1700
Toronto, ON M7A 0A7
Email: katherine.kirzati@ontario.ca

RE: Prince Township Natural Gas Pipeline Project

Dear Ms. Kirzati,

Thank you for your review of the report entitled, *Prince Township Natural Gas Pipeline Project Environmental Protection Plan, May 2015*, and subsequent letter dated June 12, 2015. We appreciate you taking the time to review the report and provide important feedback.

Union Gas Limited (Union) retained the services of Woodland Heritage Services to complete a Stage 1 Archaeological Assessment of the proposed pipeline project area to identify potential impacts to archaeological resources. The Stage 1 Archaeological Assessment report was completed and submitted to the Ministry on September 16, 2015. The Stage 1 report determined that no archaeological potential was found to exist along the proposed pipeline route.

Union retained the services of Unterman McPhail Heritage Resource Management Consultants (Unterman McPhail) to identify potential built heritage and cultural heritage landscapes in the project area. Unterman McPhail consulted the Ministry, the Ontario Heritage Trust, and Prince Township to identify such features. Currently, Unterman McPhail is finalizing a report on the potential impacts to built heritage and cultural heritage landscapes in the project area for submission to the Ministry and has completed the Ministry's *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes*.

Thank you again for your time and we will notify you of the submission of the aforementioned cultural heritage report. If you have any questions do not hesitate to ask.

Yours Truly,

Evan Tomek
Environmental Planner
Union Gas Limited
Tel: 519.436.2460 ext 5236904
Email: etomek@uniongas.com

Tomek, Evan

From: Oscar Alonso <oalonso@tssa.org>
Sent: June-19-15 4:00 PM
To: Tomek, Evan; Mike Davis
Cc: Zora Crnojacki
Subject: Community Expansion Program. Projects for Walpole Island and Township and Moraviantown.

Dear Mr. Tomek,

Thanks for the information on the Community Expansion Program for these two projects. The documentation submitted is compliant with our regulation and the documentation has been submitted to Mr. Mike Davis, Regional Supervisor, TSSA Inspection.

The construction and or commissioning of the extensions may be subject to an inspection.

Yours truly,

Oscar Alonso, P.Eng.,
Fuels Safety Engineer

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Tomek, Evan

From: Oscar Alonso <oalonso@tssa.org>
Sent: July-06-15 9:27 AM
To: Tomek, Evan
Cc: Mike Goldberg; Kourosh Manouchehri; Zora Crnojacki
Subject: Union Gas Community Expansion Program. Prince Township NG Pipeline Project

Thanks Evan for the information.

We reviewed the Prince Township Natural Gas Pipeline Project, Environmental Protection Plan dated May 2015 and the pipeline specifications.

The polyethylene pipe specs meet the present code requirements. Although the pipeline is scheduled to be constructed in the summer of 2016, when the new CSA Z662-15 is expected to be in effect, we don't see any requirements in the new code that would impose changes in the pipe design, installation or operation.

Regards,

Oscar Alonso, P.Eng.,
Fuels Safety Engineer

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Tomek, Evan

From: Tomek, Evan
Sent: August-14-15 7:39 AM
To: 'Becker, Megan (MNRF)'
Subject: RE: Prince Township natural Gas Pipeline Project - Environmental Protection Plan

Hi Megan,

Thank you for your review and comments regarding the Prince Township Natural Gas Pipeline Project Environmental Protection Plan.

Please see my responses to your questions below in red.

If you have any questions don't hesitate to ask.

Thanks,

Evan Tomek, BES
Environmental Planner *on behalf of*
Union Gas Limited | A Spectra Energy Company
745 Richmond Street | Chatham, ON N7M 5J5
Tel: 519 436 2460 ext 5236904
Cell: 226 229 9598
email: etomek@spectraenergy.com



From: Becker, Megan (MNRF) [<mailto:Megan.Becker@ontario.ca>]
Sent: August-05-15 4:25 PM
To: Tomek, Evan
Subject: Prince Township natural Gas Pipeline Project - Environmental Protection Plan

Hi Evan,

Thank you for your correspondence, dated June 1, 2015, providing the Ministry of Natural Resources and Forestry (MNRF) with an opportunity to review the Environmental Protection Plan report for the Prince Township Natural Gas Pipeline Project. The Ministry has reviewed the report to determine potential impact to Crown land and/or Crown resources as well as to assess whether or not MNRF permits and/or approvals are required for the proposed project. The following comments are based on the review:

1. Please identify the Environmental Assessment Act (EA Act) coverage in relation to the project and the process to be followed. Also, clearly demonstrate any requirements under the EA Act that will apply to all components of the project. This information allows the Ministry to determine the applicability of MNRF's Resources Stewardship and Facility Development Class Environment Assessment.
 - Union's Community Expansion Program is a direct response to the Ontario Energy Board's (OEB) initiative to address the Ontario government's desire to expand natural gas distribution systems to communities that currently do not have access to natural gas. The Prince Township Natural Gas Pipeline Project will be subject to the Ontario Energy Board Act and approval from the OEB is required before the project can proceed. Union Gas has applied to the OEB for a 'leave to construct' pursuant to section 90(1) of the Ontario Energy Board Act. As part of the application, an Environmental Protection Plan (EPP) has been completed to meet

the intent of the Ontario Energy Board Environmental Guidelines for the Location Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario, 6th Edition 2011. Currently the EPP is being reviewed by the Ontario Pipeline Coordinating Committee (OPCC). The OPCC is chaired by a staff member of the OEB and currently includes representation from the following ministries and agencies: Technical Standards and Safety Authority, Ministry of Environment and Climate Change, Ministry of Agriculture, Food and Rural Affairs, Ministry of Tourism, Culture and Sport, Ministry of Municipal Affairs and Housing, Ministry of Natural Resources and Forestry, and the Ministry of Transportation. This review also includes the local conservation authority, municipalities, landowners and other interested parties. All comments received from the OPCC review will be shared with the OEB as part of the approval process.

2. A work permit may be required to conduct work on Crown land and water crossings. In order for the Ministry to determine whether or not a work permit is required further information regarding the location of any Crown land and water crossing within the project area is required. Further information on work permits and application forms can be found on the Ontario website at the following link: <http://www.ontario.ca/rural-and-north/crown-land-work-permits>

- At this time all work is proposed within in the road allowance. Union or its Consultant will be in contact to discuss permit requirements.

3. If tree clearing is required, it is recommend that the qualified ornithologist obtained to assess the project area contact MNRF District office for values information on the area and consult with MNRF's management biologists prior to conducting surveys.

- Noted. Thank you.

Please keep in mind, that birds are not the only species at utilize trees. Bats utilize standing trees as maternity roosting sites between April 1st and August 31st. As various bat species have recently been listed as endangered under the *Endangered Species Act, 2007* it is recommended that you contact the MNRF District office should tree clearing be scheduled for the project to discuss any requirements and/or mitigation options for the proposed works.

- Noted. Thank you. Also, a qualified terrestrial biologist has completed a review of the Natural Heritage Information Centre database that did not reveal any records of at risk bat species in the vicinity of the project. Union or its Consultant will contact MNRF for further discussion.

4. An permit under the *Endangered Species Act, 2007 (ESA)* may be required for the proposed work in there will be impacts to any species at risk and/or their habitat. In order for the Ministry to determine whether or not a ESA permit is required further information is required. At your earliest convenience, have the consultant obtained to review and determine the potential for impacts to species at risk for the project contact the MNRF district office to acquire known values information as well as to discuss and confirm all *Endangered Species Act, 2007* requirements for the proposed work. Please keep in mind that the *Endangered Species Act, 2007* applies on both Crown and private lands. For information on how species at risk are protected, please refer to www.ontario.ca/speciesatrisk.

- Noted. Thank you.

Please do not hesitate to contact me throughout the project planning process to discuss the permit and approvals that may be required to conduct the proposed work.. Also, should you have any questions regarding the above information, feel free to contact me.

Regards,
Megan

Megan Becker | A/District Planner | Ministry of Natural Resources and Forestry | Sault Ste. Marie District
266 64 Church Street | Sault Ste. Marie, Ontario P6A 3H3
☎ (705) 944-5142 | 📠 (705) 949-6450 | ✉ megan.becker@ontario.ca |

In order for us to serve you better, please call ahead to make an appointment.