

September 13, 2019

VIA Email, RESS and Courier

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

Dear Ms. Walli:

**Re: Enbridge Gas Inc. (Enbridge Gas)
Ontario Energy Board (Board) File No.: EB-2016-0322
2017 Storage Enhancement Project - Final Monitoring Report**

On April 13, 2017, the Board, in its Decision for the above noted proceeding, granted Union Gas Limited¹ approval to increase capacity and deliverability of the Dawn 156 and Bentpath natural gas designated storage areas subject to certain conditions.

Pursuant to the Conditions of License and the Conditions of Approval in the aforementioned Decision, Enbridge Gas is to provide the Board with a final monitoring report no later than fifteen months after the in-service date. Please find enclosed a copy of the Final Monitoring Report for the 2017 Storage Enhancement Project.

Please contact the undersigned if you have any questions.

Yours truly,

(Original Signed)

Alison Evans
Advisor
Regulatory
Applications

cc: Z. Crnojacki
N. Marconi
Regulatory Library

¹ On January 1, 2019 Enbridge Gas Distribution Inc. and Union Gas amalgamated to form Enbridge Gas Inc. ("Enbridge Gas").

2017 STORAGE ENHANCEMENT PROJECT

FINAL MONITORING REPORT

**Prepared By: Enbridge Inc.
Environment
September 2019**

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1.0 INTRODUCTION

This Final Monitoring Report is provided pursuant to the Ontario Energy Board (“OEB” or the “Board”) Decision for the EB-2016-0322 proceeding. In that Decision, the Board granted Union Gas Limited (“Union”) (now Enbridge Gas Inc.) approval to increase capacity and deliverability of the Dawn 156 and Bentpath natural gas designated storage areas (“DSA”). These DSAs are located in the Township of Dawn-Euphemia in Lambton County. To increase the capacity and deliverability in the two storage areas, Union applied to the OEB for the following (the “Project”):

- An order to allow Union to increase the operating pressure in its Dawn 156 pool above the current operating pressure approved by the OEB in the EB-2007-0633 proceeding. The increase operating pressure added storage capacity to the Dawn 156 pool.
- A favourable report from the Board to the Ministry of Natural Resources and Forestry (“MNRF”) pursuant to section 40(1) of the OEB Act for licences to drill three injection/withdrawal (“I/W”) wells in the Dawn 156 pool and one I/W well in the Bentpath pool; to deepen and convert an observation well to an I/W well, and to deepen three I/W wells in the Bentpath pool (the “Wells”). Drilling and operation of the Wells added deliverability to the Dawn 156 and the Bentpath pools.
- The granting of leave to construct 600 metres of Nominal Pipe Size (“NPS”)12 inch pipeline within the Dawn 156 and Bentpath pools, pursuant to section 90 of the OEB Act (the “Pipelines”). The Pipelines connect the Wells to Union’s integrated storage and transportation system.

The requirements for and details of this report are outlined in the specific conditions issued by the OEB in its Decision dated April 13, 2017 and are set out below. There are two separate sets of conditions issued by the OEB. The first set of conditions relate to the Wells and are set out in the Conditions of Licence in the Decision. The second set of conditions relate to the Pipelines and are set out in the Conditions of Approval in the Decision. The complete Conditions of Licence and Conditions of Approval can be

found in Appendix B of this report. The Conditions of Licence and Conditions of Approval addressed in this report are as follows:

Conditions of Licence – Well Drilling and Operation

Condition 1

Union Gas Limited (Union) shall rely on the evidence filed with the OEB in EB-2016-0322 proceeding and comply with applicable laws, regulations and codes pertaining to the construction of the proposed wells.

Condition 3

Union shall construct the facilities and restore the land in accordance with its Application and evidence given to the OEB, except as modified by this licence and these Conditions.

Condition 4

Union shall ensure that the movement of equipment is carried out in compliance with all procedures filed with the OEB, and as follows:

- i) Union shall make reasonable efforts to keep the affected landowner as well as adjacent landowners and their respective tenant farmers, or their designated representatives, informed of its plans and construction activities; and
- ii) the installation of facilities and construction shall be coordinated so as to minimize disruption of agricultural land and agricultural activities.

Condition 5

Union shall, subject to the recommendation by an independent tile contractor and subject to the landowners approval, construct upstream and downstream drainage headers adjacent to the drilling area and access roads that cross existing systematic drainage tiles, prior to the delivery of heavy equipment, so that continual drainage will be maintained.

Condition 6

Both during and after construction, Union shall monitor the impacts of construction, and shall file with the OEB one paper copy and one electronic (searchable PDF) version of each of the following reports:

- a) a post construction report, within three months of the in-service date, which shall:
 - i. provide a certification, by a senior executive of the company, of Union's adherence to Condition 1;
 - ii. describe any impacts and outstanding concerns identified during construction;
 - iii. describe the actions taken or planned to be taken to prevent or mitigate any identified impacts of construction;
 - iv. include a log of all complaints received by Union, including the date/time the complaint was received, a description of the complaint, any actions taken to address the complaint, the rationale for taking such actions; and
 - v. provide a certification, by a senior executive of the company, that the company has obtained all other approvals, permits, licenses, and certificates required to construct, operate and maintain the proposed project.

- b) a final monitoring report, no later than fifteen months after the in-service date, or, where the deadline falls between December 1 and May 31, the following June 1, which shall:
 - i. provide a certification, by a senior executive of the company, of Union adherence to Condition 1;
 - ii. describe the condition of any rehabilitated land;
 - iii. describe the effectiveness of any actions taken to prevent or mitigate any identified impacts of construction;
 - iv. include the results of analyses and monitoring programs and any recommendations arising therefrom; and
 - v. include a log of all complaints received by Union, including the date/time the complaint was received, a description of the complaint, any actions taken to address the complaint, the rationale for taking such actions.

Pipelines Leave to Construct – Conditions of Approval

Condition 1

Union Gas Limited (Union) shall construct the facilities and restore the land in accordance with the Board's Decision and Order in EB-2016-0322 and these Conditions of Approval.

Condition 3

Union shall implement all the recommendations of the Environmental Protection Plan filed in the proceeding, and all the recommendations and directives identified by the Ontario Pipeline Coordinating Committee review.

Condition 4

Union shall advise the OEB of any proposed change to OEB-approved construction or restoration procedures. Except in an emergency, Union shall not make any such change without prior notice to and written approval of the OEB. In the event of an emergency, the OEB shall be informed immediately after the fact.

Condition 6

Both during and after construction, Union shall monitor the impacts of construction, and shall file with the OEB one paper copy and one electronic (searchable PDF) version of each of the following reports:

- a) a post construction report, within three months of the in-service date, which shall:
 - i. provide a certification, by a senior executive of the company, of Union's adherence to Condition 1;
 - ii. describe any impacts and outstanding concerns identified during construction;
 - iii. describe the actions taken or planned to be taken to prevent or mitigate any identified impacts of construction;
 - iv. include a log of all complaints received by Union, including the date/time the complaint was received, a description of the complaint, any actions taken to address the complaint, the rationale for taking such actions; and

- v. provide a certification, by a senior executive of the company, that the company has obtained all other approvals, permits, licenses, and certificates required to construct, operate and maintain the proposed project.
- b) a final monitoring report, no later than fifteen months after the in-service date, or, where the deadline falls between December 1 and May 31, the following June 1, which shall:
- i. provide a certification, by a senior executive of the company, of Union adherence to Condition 3;
 - ii. describe the condition of any rehabilitated land;
 - iii. describe the effectiveness of any actions taken to prevent or mitigate any identified impacts of construction;
 - iv. include the results of analyses and monitoring programs and any recommendations arising therefrom; and
 - v. include a log of all complaints received by Union, including the date/time the complaint was received, a description of the complaint, any actions taken to address the complaint, the rationale for taking such actions.

2.0 BACKGROUND

Union was granted approval to construct the Project on April 13, 2017. Construction was initiated on April 27, 2017 and the pipeline was placed into service on June 19, 2018 which completed construction. Clean-up and land restoration was mostly completed in the fall of 2018, with any remaining clean-up completed/to be completed in the summer/fall 2019.

The well drilling, pipeline installation and associated works in the Bentpath pool occurred on Lots 31-32, Concession 5, Township of Dawn-Euphemia in Lambton County. The well drilling, pipeline installations and associated works in the Dawn 156 pool occurred on Lots 32-33, Concession 1, Township of Dawn-Euphemia in Lambton County. Please see Appendix A of this report for mapping of the Project Area.

All of the work was completed in accordance with the existing Storage Lease Agreements within the Dawn 156 and the Bentpath pools. In addition to the existing Storage Lease Agreements, Union obtained from all six directly affected landowners signed Letters of Acknowledgement, in which they agreed to the location of all of the Project facilities and stated they had no objection to the commencement of drilling the wells, construction of the pipelines, and construction of the permanent all-weather access roadways.

While the existing Storage Lease Agreements allow for Union to construct gathering pipelines, Union offered directly affected landowners a new Form of Pipeline Easement Agreement. Union filed the Form of Pipeline Easement Agreement and noted that this form was previously approved by the OEB in the EB- 2014-0261 proceeding and was amended to include the new requirements under CSA Z662-15 “Oil and Gas Pipeline Systems” with respect to the prohibitions of storage of a flammable material, solid or liquid spoil, refuse waste or effluent on the easement.

The main activities of the Project were as follows:

- Topsoil stripping at the locations of the proposed all-weather access roads and drilling pads;
- Construction of the all-weather access roads and drilling pads;
- Drilling the new I/W wells, converting an existing observation well to an I/W well and deepening the three existing I/W wells;
- Connecting the new I/W wells to the existing gathering system with the installation of the new NPS 12 inch pipelines; and
- Clean-up and land restoration.

Union returned to the right-of-way in the spring of 2019 to perform a general overview of the Project area and to ensure clean-up and restoration measures were successful and all disturbed areas were stable and re-vegetated. All clean-up and restoration measures implemented were successful, and any areas that required additional clean-up were addressed in the summer of 2019. Minor clean-up at one well location in the Dawn 156

pool in consultation with the landowner is ongoing and is anticipated to be completed by the end of 2019.

3.0 POTENTIAL IMPACTS AND MITIGATION

3.1 Conditions of Licence – Well Drilling and Operation

3.1.1 Condition 1

Union Gas Limited (Union) shall rely on the evidence filed with the OEB in EB-2016-0322 proceeding and comply with applicable laws, regulations and codes pertaining to the construction of the proposed wells.

Union relied on the evidence filed with the OEB in EB-2016-0322 proceeding and complied with applicable laws, regulations and codes pertaining to the construction of the proposed wells.

3.1.2 Condition 3

Union shall construct the facilities and restore the land in accordance with its Application and evidence given to the OEB, except as modified by this licence and these Conditions.

Union constructed the facilities and restored the land in accordance with the Board's Decision and Order in EB-2016-0322 and the Conditions of Licence, including the conditions applicable to the change requests and associated approvals as discussed in section 3.2.3.

3.1.3 Condition 4

Union shall ensure that the movement of equipment is carried out in compliance with all procedures filed with the OEB, and as follows:

- i) Union shall make reasonable efforts to keep the affected landowner as well as adjacent landowners and their respective tenant farmers, or their*

designated representatives, informed of its plans and construction activities; and

Union's Lands Relations Agent kept the affected landowner as well as adjacent landowners and their respective tenant farmers/designated representatives informed of its plans and construction activities and was available by phone throughout the duration of construction.

ii) the installation of facilities and construction shall be coordinated so as to minimize disruption of agricultural land and agricultural activities.

Union coordinated the installation of facilities and construction so as to minimize disruption of agricultural land and agricultural activities by:

- Testing each impacted agricultural field for Soybean Cyst Nematodes ("SCN") and implementing appropriate mitigation measures (i.e. Clean Equipment Protocols) where required in order to prevent the spread of SCN to fields not impacted by SCN;
- Ensuring the landowners agreed to the location of all of the 2017 Project facilities;
- Pre-construction tiling was undertaken prior to the start of construction where required;
- Disrupted or broken tiles were repaired following Union's documented procedures for tile repair;
- Grading and any other work on wet soils was prohibited and wet soils shutdown practices were adhered to;
- Stripping topsoil prior to the construction of all-weather access roads, temporary drilling pads, and pipeline installations to maintain its integrity and prevent topsoil/subsoil mixing during restoration;

- Landowners and tenants were contacted before any fences were disturbed, temporary fencing was erected if requested by the landowner or tenant, and fences were replaced as soon as possible;
- Areas disrupted by drilling and pipeline construction were restored by re-grading followed by chisel ploughing and disking;
- The Lands Relations Agent reviewed and discussed site restoration measures with the landowners prior to implementation to obtain any concerns or suggestions with regard to such measures; and
- Upon completion, the Lands Relations Agent reviewed the areas with the landowners to ensure restoration was completed to the landowner's satisfaction.

3.1.4 Condition 5

Union shall, subject to the recommendation by an independent tile contractor and subject to the landowners approval, construct upstream and downstream drainage headers adjacent to the drilling area and access roads that cross existing systematic drainage tiles, prior to the delivery of heavy equipment, so that continual drainage will be maintained.

No landowners requested upstream and downstream header tiles around the proposed roads and drilling pads therefore the construction of upstream and downstream drainage headers was not necessary.

3.1.5 Condition 6

Both during and after construction, Union shall monitor the impacts of construction and shall file with the OEB one paper copy and one electronic (searchable PDF) version of each of the following reports:

- a) *a post construction report, within three months of the in-service date, which shall:*
- i. *provide a certification, by a senior executive of the company, of Union's adherence to Condition 1;*
 - ii. *describe any impacts and outstanding concerns identified during construction;*
 - iii. *describe the actions taken or planned to be taken to prevent or mitigate any identified impacts of construction;*
 - iv. *Include a log of all complaints received by Union, including the date/time the complaint was received, a description of the complaint, any actions taken to address the complaint, the rationale for taking such actions; and*
 - v. *provide a certification, by a senior executive of the company, that the company has obtained all other approvals, permits, licenses, and certificates required to construct, operate and maintain the proposed project.*

A Post Construction Report that satisfied the above conditions was completed and submitted to the Board within three months of the in-service date in September 2018.

- b) *a final monitoring report, no later than 15 months after the in-service date, or, where the deadline falls between December 1 and May 31, the following June 1, which shall:*
- i. *provide a certification, by a senior executive of the company, of Union adherence to Condition 3;*

One paper copy and one electronic (searchable PDF) version of this Final Monitoring Report are being filed with the Board. This report is certified by Michelle George, Vice President of Engineering, that Union has constructed the facilities and restored the land in accordance with its Application and evidence given to the OEB and is confirmed by the signed letter of approval in Appendix E.

ii. describe the condition of any rehabilitated land;

All clean-up and restoration measures implemented were successful. All of the temporary gravel drilling pads were reduced in size and all agricultural land was either in-production or suitable to continue production. Minor clean-up at one well location in the Dawn 156 pool in consultation with the landowner is ongoing and is anticipated to be completed by the end of 2019. Please see Appendix F for a photo log of the restored land.

iii. describe the effectiveness of any actions taken to prevent or mitigate any identified impacts of construction;

The mitigation measures taken to address the identified impacts of construction as listed in Table 1 below were utilized and successful. Additional mitigation measures for SCN were implemented and are described in the following section. No other concerns arose during construction that required the use of additional mitigation measures not listed in Table 1.

iv. include the results of analyses and monitoring programs and any recommendations arising therefrom; and

Prior to construction, all work areas located in agricultural fields were sampled for SCN and two of the work areas tested positive. Mitigation to prevent the spread of SCN to non-impacted agricultural fields included working on non-impacted fields first, as well as ensuring all equipment leaving impacted fields were clean and free of debris.

Union's Well Monitoring Program was also implemented and involved pre-construction water sampling and analysis of water wells located within 2 km of construction activity for any interested landowner. Seven

water wells were sampled and analyzed by a professional Hydrogeologist prior to construction, including one that was also sampled after construction as per the landowner's request. The results of the post construction analysis indicated that construction did not have an impact on the landowner's water well and there are no outstanding concerns.

- v. *include a log of all complaints received by Union Gas, including the date/time the complaint was received, a description of the complaint, any actions taken to address the complaint, the rationale for taking such actions.*

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

One complaint was received from a landowner on May 16, 2018 and was resolved by May 22, 2018. Please see Appendix D of this report for a summary of the complaint.

Enbridge Gas Inc. will continue to monitor the state of the land and will address any landowner or public concerns should they arise.

3.2 Pipelines Leave to Construct – Conditions of Approval

3.2.1 Condition 1

Union Gas Limited (Union) shall construct the facilities and restore the land in accordance with the Board's Decision and Order in EB-2016-0322 and these Conditions of Approval.

Union constructed the facilities and restored the land in accordance with the Board's Decision and Order in EB-2016-0322 and the Conditions of Approval, including the conditions associated with the change requests approvals as discussed in section 3.2.3.

3.2.2 Condition 3

Union shall implement all the recommendations of the Environmental Protection Plan filed in the proceeding, and all the recommendations and directives identified by the Ontario Pipeline Coordinating Committee review.

Union implemented all the recommendations of the Environmental Protection Plan filed in the proceeding. No additional recommendations or directives were identified by the Ontario Pipeline Coordinating Committee review. Table 1 identifies the steps and measures taken by Union to ensure adherence to the recommendations and mitigation measures identified in the Environmental Protection Plan.

3.2.3 Condition 4

Union shall advise the OEB of any proposed change to OEB-approved construction or restoration procedures. Except in an emergency, Union shall not make any such change without prior notice to and written approval of the OEB. In the event of an emergency, the OEB shall be informed immediately after the fact.

Union advised the Board of five (5) changes to the Board. The following change requests were filed with the Board:

1. (Change Request No.1) July 7, 2017: Union's pre-filed evidence proposed to abandon well D-223. After the well had been abandoned this change request was proposed that Union remove the gathering pipeline that serves the well, and remove the road access to the well. Removing the pipeline and access road will avoid any future conflicts with agricultural operations in the field. Union's original plan had been to leave the pipeline and road access in place.
2. (Change Request No. 2) September 27, 2017: Union proposed to change the top hole location for well UB14. The surface location will be moved approximately 5 metres south from the location identified in Union's pre-filed evidence. During the drilling of UB14 the drill bit became stuck in the wellbore approximately 290 metres below the surface. Union made a number of attempts to remove the stuck drill bit but was unsuccessful in removing the bit and has subsequently abandoned the well.
3. (Change Request No. 3) September 27, 2017: Union proposed to delay the completion of wells D286 and D287 until the April 2018. Construction of the 600 metres of NPS 12 gathering pipeline within the Dawn 156 and Bentpath pool was also delayed. The drilling program in the Dawn 156 pool started late and could not be completed in the scheduled timeframe. It was necessary to put the pool back in service so that it could be filled during the normal injection season. As a result well drilling was suspended when the pool pressure exceeded 800 psi and will resume in the spring of 2018 as the pressure drops below this level. Delivery timelines for suitable pipeline materials were delayed which resulted in a postponement of the installation of the gathering pipeline. The gathering pipeline installation will be completed during the fall pool stabilization and is expected to be completed

by December 31, 2017. Final above grade well connections will be completed by April 2018.

4. (Change Request No. 4) September 27, 2017: Union's pre-filed evidence proposed to deepen well UB12 in the Bentpath pool. When UB12 was originally drilled it was not drilled to its proposed depth as a result of the drilling tools becoming stuck in the wellbore. Union had planned to remove the tools from the wellbore and further deepen the well as part of this project. In 2017 Union attempted to remove this stuck drilling tool but was unsuccessful and therefore was not able to deepen the UB12.
5. (Change Request No. 5). April 12, 2018: In Change Request 3 Union identified that the final in-service date for this Project would be April 2018. Due to additional delays the final in-service for this Project was June 2018. The drilling of the Bentpath UB14 well was delayed. Completion of all of the wells in the 156 Pool took longer than anticipated and the drilling of the UB14 well has not been completed as quickly as planned.

Union received approvals for the change requests on July 24, 2017 (Change Request No. 1), September 29, 2017 (Change Requests Nos. 2, 3, 4), and April 24, 2018 (Change Request No. 5).

Union's change requests and Board approvals are provided in Appendix C to this report.

3.2.4 Condition 6

Both during and after construction, Union shall monitor the impacts of construction, and shall file with the OEB one paper copy and one electronic (searchable PDF) version of each of the following reports:

- a) *a post construction report, within three months of the in-service date, which shall:*
- i. provide a certification, by a senior executive of the company, of Union's adherence to Condition 1;*
 - ii. describe any impacts and outstanding concerns identified during construction;*
 - iii. describe the actions taken or planned to be taken to prevent or mitigate any identified impacts of construction;*
 - iv. include a log of all complaints received by Union, including the date/time the complaint was received, a description of the complaint, any actions taken to address the complaint, the rationale for taking such actions; and*
 - v. provide a certification, by a senior executive of the company, that the company has obtained all other approvals, permits, licenses, and certificates required to construct, operate and maintain the proposed project.*

A Post Construction Report that satisfied the above conditions was completed and submitted to the Board within three months of the in-service date in September 2018.

- b) *A final monitoring report, no later than fifteen months after the in-service date, or, where the deadline falls between December 1 and May 31, the following June 1, which shall:*
- i. provide a certification, by a senior executive of the company, of Union's adherence to Condition 1;*

One paper copy and one electronic (searchable PDF) version of this Final Monitoring Report are being filed with the Board. This report is certified by Michelle George, Vice President of Engineering, that Union has constructed the facilities and restored the land in accordance with the Board's Decision and Order in EB-2016-0322 and the Conditions of

Approval and is confirmed by the signed letter of approval in Appendix E.

ii. describe the condition of any rehabilitated land;

All clean-up and restoration measures implemented were successful. All of the temporary gravel pads were reduced in size and all agricultural land was either in-production or suitable to continue production. Minor clean-up at one well location in the Dawn 156 pool in consultation with the landowner is ongoing and is anticipated to be completed by the end of 2019. Please see Appendix F for a photo log of the restored land.

iii. describe the effectiveness of any actions taken to prevent or mitigate any identified impacts of construction;

The mitigation measures taken to address the identified impacts of construction listed in Table 1 were utilized and successful. Additional mitigation measures for SCN were implemented and are described in the following section. No other concerns arose during construction that required the use of additional mitigation measures not listed in Table 1.

iv. include the results of analyses and monitoring programs and any recommendations arising therefrom; and

Prior to construction, all work areas located in agricultural fields were sampled for SCN and two of the work areas tested positive. Mitigation to prevent the spread of SCN to non-impacted agricultural fields included working on non-impacted fields first, as well as ensuring all equipment leaving impacted fields were clean and free of debris.

Union's Well Monitoring Program was also implemented and involved pre-construction water sampling and analysis of water wells located within 2 km of construction activity for any interested landowner. Seven

water wells were sampled and analyzed by a professional Hydrogeologist prior to construction, including one that was also sampled after construction as per the landowner's request. The results of the post construction analysis indicated that construction did not have an impact on the landowner's water well and there are no outstanding concerns.

- v. *include a log of all complaints received by Union, including the date/time the complaint was received, a description of the complaint, any actions taken to address the complaint, the rationale for taking such actions.*

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

One complaint was received from a landowner on May 16, 2018 and was resolved by May 22, 2018. Please see Appendix D for a summary of the complaint.

Enbridge Gas Inc. will continue to monitor the state of the land and will address any landowner or public concerns should they arise.

4.0 SUMMARY

This Final Monitoring Report has been prepared pursuant to the conditions in the Board's Decision for the EB-2016-0322 proceeding. The report provides confirmation that Union has implemented all the recommendations of the Environmental Protection Plan filed in the proceeding and all recommendations and directives identified by the Ontario Pipeline Coordinating Committee. This report also confirms that Union successfully rehabilitated the land disturbed from construction and there are no outstanding concerns. It is anticipated that these mitigation measures and rehabilitation efforts will effectively eliminate any long-term impacts to the environment.

Table 1

Potential Impacts and Mitigation Measures

Table 1: Potential Impacts and Mitigation Measures		
Issue	Potential Impact	Mitigation Measure
Location of facilities	Ancillary facilities such as wellheads and access roads may be an inconvenience to landowners and farming operations.	<ul style="list-style-type: none"> - Prior to any activity associated with the development, the Lands Relations Agent met with the directly affected landowners and reviewed items such as the drilling schedule, as well as the location of the wellheads. Pipelines and permanent access roads. - The facilities were located so as to minimize any inconvenience to the farming operations and as agreed to by the landowners.
Surveying	Surveying may be disruptive to the landowners.	<ul style="list-style-type: none"> - The landowners were notified of the intent to enter their properties.
Access Roads	Vehicular traffic during and after drilling and pipeline installation (i.e. well operations and maintenance vehicles) may cause soil rutting, compaction or mixing, particularly if soils are wet.	<ul style="list-style-type: none"> - The locations of the access roads were reviewed with the landowners. Roads were constructed in such a way to minimize disruption to farm operations. - Existing laneways were utilized where possible. - Access roads and granular work areas were limited in size to the greatest extent possible. - All traffic was limited to the access roads or granular work areas to the greatest extent possible. - Culverts were used in the construction of access roads to ensure existing drainage patterns were maintained where required. - Geotextile fabric was used for access roads and work areas to provide additional stability, minimize compaction and eliminate soil mixing with granular material.
Grading	Grading was necessary for the construction of	<ul style="list-style-type: none"> - Pre-construction tiling was undertaken prior to the start of

Table 1: Potential Impacts and Mitigation Measures		
Issue	Potential Impact	Mitigation Measure
	access roads, drilling pads and pipeline work areas. On Agricultural land, grading has the potential to impact soil productivity by disrupting tile drains and causing soil mixing, rutting and compaction, particularly during wet soil conditions.	<p>any drilling operations, if necessary.</p> <ul style="list-style-type: none"> - Disrupted or broken tile was repaired following the Company's documented procedures for tile repair. - Grading was not conducted on wet soils and wet soils shutdown practices were adhered to. - In drilling and pipeline work areas where land would be returned to its former use (agricultural), topsoil was stripped and stockpiled along the edges of the work area following documented Company procedures. - An Environmental Inspector was onsite at a regular basis to observe operations such as topsoil stripping, trenching, dewatering and any other procedures that may have had an impact on the environment.
Noise	Noise from the drilling rig, pipeline equipment and/or service vehicles may disrupt nearby residents.	<ul style="list-style-type: none"> - Noise was controlled to the greatest extent possible to minimize the disruption to nearby residents. - All equipment was properly muffled.
Site Restoration	Improper site restoration may have permanently affected soil productivity.	<ul style="list-style-type: none"> - Areas disrupted by drilling and pipeline construction were restored by re-grading followed by chisel ploughing and disking. - The Lands Relations Agent reviewed and discussed site restoration measures with the landowners prior to implementation to obtain any concerns or suggestions with regard to the proposed measures.

Table 1: Potential Impacts and Mitigation Measures		
Issue	Potential Impact	Mitigation Measure
Fuel Storage and Handling	Improper fuel storage and handling may have caused spilling and possible soil contamination.	<ul style="list-style-type: none"> - Fuel was not stored near watercourses (i.e. within 50 m). - Fuel storage areas were clearly marked. - Containment dykes and protective plastic ground matting were used in fuel storage areas to protect against spillage and leakage. - Spill clean-up materials were stored onsite and were available in the event of a spill. If necessary, spills or leaks were to be reported to the appropriate authority immediately (Ministry of Environment and Climate Change Spills Action Centre at 1-800-268-6060).
Liquid and Solid Waste	Drilling fluids, solid wastes and lubricants must be properly handled, stored and disposed of to avoid the possible contamination of surrounding soil or water.	<ul style="list-style-type: none"> - Liquid and solid wastes were properly stored, handled and disposed of in an approved location. - Drilling fluids were properly contained in waste tanks and disposed of after drilling in an appropriate location. - The level of drilling fluids was frequently monitored to avoid possible overflows of the tanks.
Landowner Concerns	Disruption to landowners and tenants.	<ul style="list-style-type: none"> - Union provided the landowners and tenants with the telephone numbers of Company personnel. - A Landowner Relations Program was established to track complaints during construction.
Roadside Ditches	Water quality concerns.	<ul style="list-style-type: none"> - Ditches were returned to pre-construction conditions or better as quickly as possible.
Nuisance Dust	Disturbance to landowners and tenants.	<ul style="list-style-type: none"> - Dust was controlled as required.

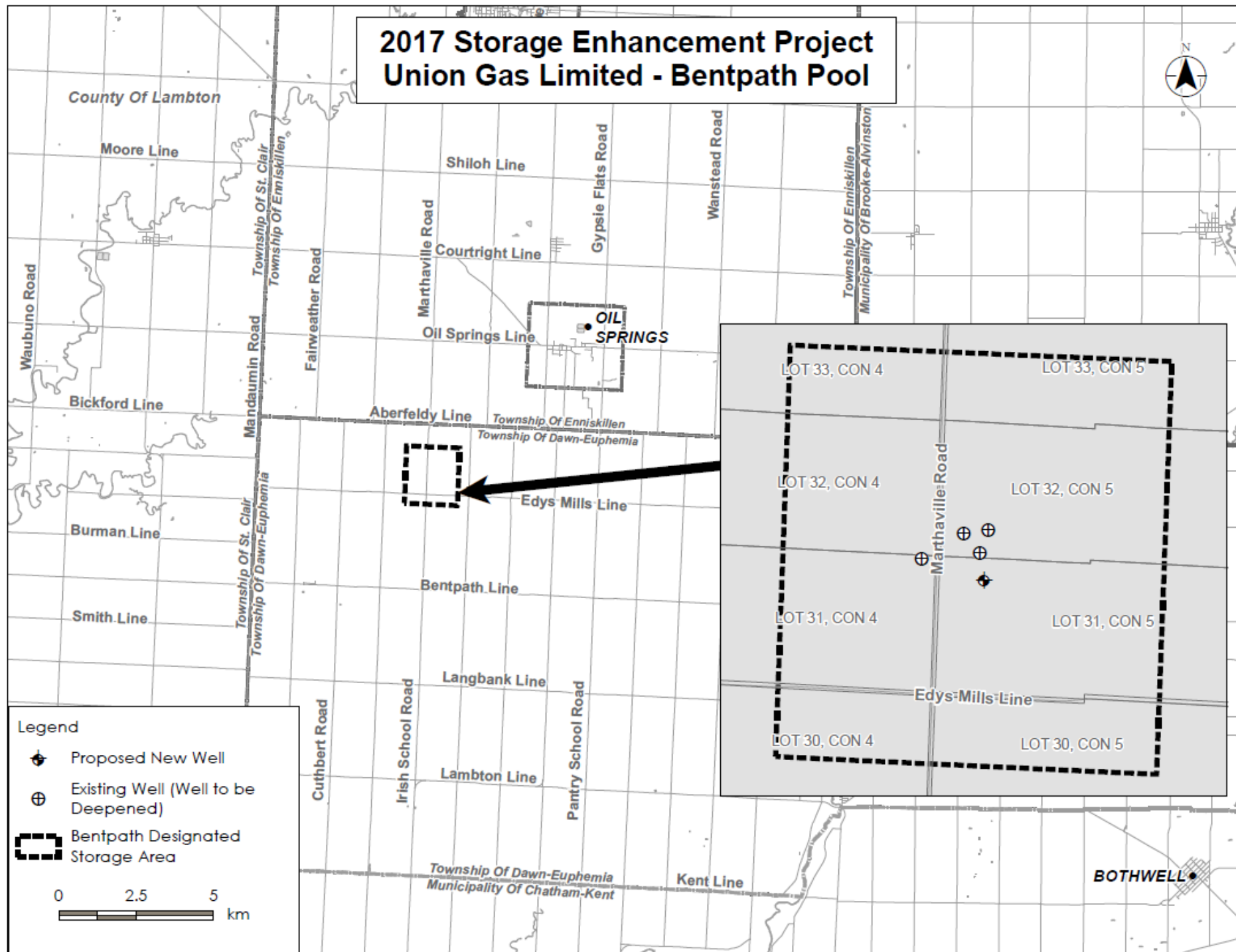
Table 1: Potential Impacts and Mitigation Measures		
Issue	Potential Impact	Mitigation Measure
Fences	<p>Disruption to landowners and tenants.</p> <p>Loss of control of animals inside fenced areas.</p>	<ul style="list-style-type: none"> - Landowners and tenants were contacted before any fences were disturbed. - Temporary fencing was erected if requested by the landowners or tenants. - Fences were replaced as soon as possible.
Underground Utilities	Disruption of services.	<ul style="list-style-type: none"> - Locates were obtained from all utilities. - Any damages to utilities were repaired as soon as possible.
Archaeology, Cultural Heritage Landscapes and Built Heritage Resources	Disturbance of heritage resources.	<ul style="list-style-type: none"> - An Archaeological Assessment was completed prior to construction. - Direction was given to stop construction if artifact were encountered and to notify the Ministry of Tourism, Culture and Sport. - A Cultural Heritage consultant was retained to determine if impacts to cultural heritage landscapes and/or built heritage resources were anticipated and to develop a mitigation plan if required.
Water Wells	Disruption to water supply.	<ul style="list-style-type: none"> - If water quality/quantity concerns occurred as a result of construction activities, the Company would supply potable water until the situation was corrected. - Union implemented its standard well monitoring program.
Trees	Damage to trees and disturbance to wildlife.	<ul style="list-style-type: none"> - Minimal tree removal occurred. - Trees were removed outside of the avian nesting window. - Restoration plans were discussed with the landowners if required.

Table 1: Potential Impacts and Mitigation Measures		
Issue	Potential Impact	Mitigation Measure
Natural Areas	Sedimentation run-off.	- Sediment barriers such as straw bales/sediment fencing were used where there was potential for runoff.
Vegetative cover	Loss of vegetative cover leading to soil erosion.	- Cover was restored by means of seeding or hydro-seeding as soon as possible.
Soils: Erosion	Introduction of sediment/silt to adjacent lands.	- Disturbed soils were restored as soon as possible after construction.
Contaminated Soils	Dealing with contaminated materials. Public safety issue.	- No contaminated soils were anticipated, however; if suspect soils were uncovered, direction was provided to stop work immediately, contact the Union Environmental Department, and clean up contaminated material following Company and Ministry of the Environment and Climate Change procedures.

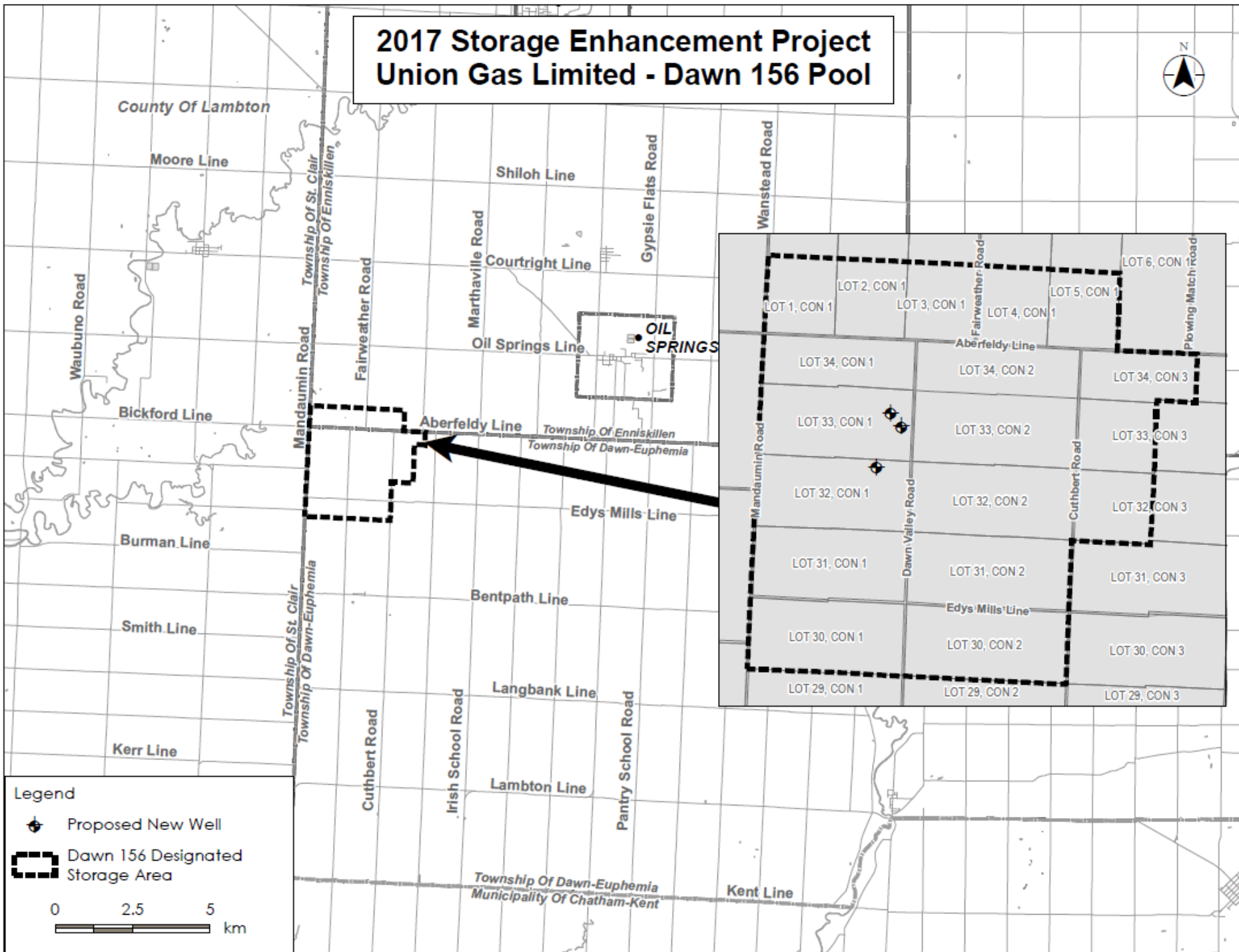
Appendix A

General Location Maps

2017 Storage Enhancement Project Union Gas Limited - Bentpath Pool



2017 Storage Enhancement Project Union Gas Limited - Dawn 156 Pool



Appendix B

Conditions of Licence & Conditions of Approval

Union Gas Limited
EB-2016-0322
Conditions of Licence - Well Drilling and
Operation

1. Union Gas Limited (Union) shall rely on the evidence filed with the OEB in EB-2016-0322 proceeding and comply with applicable laws, regulations and codes pertaining to the construction of the proposed wells.
2. The authority granted under this licence to Union is not transferable to another party without leave of the OEB. For the purpose of this condition another party is any party except Union Gas Limited.
3. Union shall construct the facilities and restore the land in accordance with its Application and evidence given to the OEB, except as modified by this licence and these Conditions.
4. Union shall ensure that the movement of equipment is carried out in compliance with all procedures filed with the OEB, and as follows:
 - i) Union shall make reasonable efforts to keep the affected landowner as well as adjacent landowners and their respective tenant farmers, or their designated representatives, informed of its plans and construction activities; and
 - ii) the installation of facilities and construction shall be coordinated so as to minimize disruption of agricultural land and agricultural activities.
5. Union shall, subject to the recommendation by an independent tile contractor and subject to the landowners approval, construct upstream and downstream drainage headers adjacent to the drilling area and access roads that cross existing systematic drainage tiles, prior to the delivery of heavy equipment, so that continual drainage will be maintained.
6. Both during and after construction, Union shall monitor the impacts of construction, and shall file with the OEB one paper copy and one electronic (searchable PDF) version of each of the following reports:
 - a) a post construction report, within three months of the in-service date, which shall:

-
- i. provide a certification, by a senior executive of the company, of Union's adherence to Condition 1;
 - ii. describe any impacts and outstanding concerns identified during construction;
 - iii. describe the actions taken or planned to be taken to prevent or mitigate any identified impacts of construction;
 - iv. include a log of all complaints received by Union, including the date/time the complaint was received, a description of the complaint, any actions taken to address the complaint, the rationale for taking such actions; and
 - v. provide a certification, by a senior executive of the company, that the company has obtained all other approvals, permits, licences, and certificates required to construct, operate and maintain the proposed project.
 - b) a final monitoring report, no later than fifteen months after the in-service date, or, where the deadline falls between December 1 and May 31, the following June 1, which shall:
 - i. provide a certification, by a senior executive of the company, of Union's adherence to Condition 1;
 - ii. describe the condition of any rehabilitated land;
 - iii. describe the effectiveness of any actions taken to prevent or mitigate any identified impacts construction;
 - iv. include the results of analyses and monitoring programs and any recommendations arising therefrom; and
 - v. include a log of all complaints received by Union, including the date/time the complaint was received, a description of the complaint, any actions taken to

address the complaint, the rationale for taking such actions.

7. For the purposes of these conditions, conformity of Union with CSA Z341 shall be to the satisfaction of the Ministry of Natural Resources and Forestry.

**Leave to Construct Conditions of
Approval Application under Section 90 of
the OEB Act Union Gas Limited
EB-2016-0322**

1. Union Gas Limited (Union) shall construct the facilities and restore the land in accordance with the Board's Decision and Order in EB-2016-0322 and these Conditions of Approval.
2. (a) Authorization for leave to construct shall terminate 12 months after the decision is issued, unless construction has commenced prior to that date.

(b) Union shall give the OEB notice in writing:
 - i. of the commencement of construction, at least ten days prior to the date construction commences;
 - ii. of the planned in-service date, at least ten days prior to the date the facilities go into service;
 - iii. of the date on which construction was completed, no later than 10 days following the completion of construction; and
 - iv. of the in-service date, no later than 10 days after the facilities go into service.
3. Union shall implement all the recommendations of the Environmental Protection Plan filed in the proceeding, and all the recommendations and directives identified by the Ontario Pipeline Coordinating Committee review.
4. Union shall advise the OEB of any proposed change to OEB-approved construction or restoration procedures. Except in an emergency, Union shall not make any such change without prior notice to and written approval of the OEB. In the event of an emergency, the OEB shall be informed immediately after the fact.
6. Both during and after construction, Union shall monitor the impacts of construction, and shall file with the OEB one paper copy and one electronic (searchable PDF) version of each of the following reports:

- (a) a post construction report, within three months of the in-service date, which shall:
- i. provide a certification, by a senior executive of the company, of Union's adherence to Condition 1;
 - ii. describe any impacts and outstanding concerns identified during construction;
 - iii. describe the actions taken or planned to be taken to prevent or mitigate any impacts of construction;
 - iv. include a log of all complaints received by Union, including the date/time the complaint was received, a description of the complaint, any actions taken to address the complaint, the rationale for taking such actions; and
 - v. provide a certification, by a senior executive of the company, that the company has obtained all other approvals, permits, licences, and certificates required to construct, operate and maintain the proposed project.
- b) a final monitoring report, no later than fifteen months after the in-service date, or, where the deadline falls between December 1 and May 31, the following June 1, which shall:
- i. provide a certification, by a senior executive of the company, of Union's adherence to Condition 3;
 - ii. describe the condition of any rehabilitated land;
 - iii. describe the effectiveness of any actions taken to prevent or mitigate any identified impacts construction;
 - iv. include the results of analyses and monitoring programs and any recommendations arising therefrom; and

- v. include a log of all complaints received by Union, including the date/time the complaint was received, a description of the complaint, any actions taken to address the complaint, the rationale for taking such actions.

Appendix C

Change Requests and Approvals



July 7, 2017

RESS and Courier

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

Dear Ms. Walli,

**Re: Union Gas Limited (“Union”)
2017 Storage Enhancement Project
Board File # EB-2016-0322**

Please find attached Change Request 1, for the above-noted project.

Union believes that this change is not significant and would appreciate your timely review and approval of this request, as construction is in progress.

In the event that you have any questions or would like to discuss in more detail, please do not hesitate to contact me at 519-436-5457.

Sincerely,

[original signed by]

W. T. (Bill) Wachsmuth, RPF
Senior Administrator, Regulatory Projects

cc: Nancy Marconi, OEB
Zora Crnojacki, OEB

REQUEST TO VARY

Project Name: 2017 Storage Enhancement Project

OEB file Number: EB-2016-0322

Request to Vary: 1

Description and Rationale for Change

Union is proposing the following changes in the Dawn 156 Storage Pool:

As identified in Unions pre filed evidence Union is proposing to abandon well D-223. After the well has been abandoned Union will remove the gathering pipeline that serves the well, and remove the road access to the well. Removing the pipeline and access road will avoid any future conflicts with agricultural operations in the field. Union's original plan had been to leave the pipeline and road access in place.

As identified in Unions pre-filed evidence Union is proposing to convert well D-230 to an observation well. Once this well has been converted to an observation well it is no longer necessary to have the well connected to the gathering system in the Pool. The NPS 6 gathering pipeline between Wells D-286 and D-230 will be abandoned. Due to its proximity of the gathering line to the existing road network that is still required, it is Unions plan is to abandon this pipeline in place following the TSSA guidelines. Union's original plan had been to leave the observation well connected to the gathering system

Union would also like to correct an omission on Schedule 11 of the pre filed evidence. This schedule shows well D-219 and an NPS 4 pipeline connecting this well to the gathering system. This well was abandoned and the gathering pipeline removed in 2007.

Construction and Restoration Practices

Union will follow its standard construction practices for the removal of the pipeline. The TSSA abandonment guidelines will be followed during the abandonment of the facilities. The land will be returned to their current condition once construction has been completed.

Environmental

No new environmental mitigation measures will be required.

Consultation

Union has discussed the changes with the directly affected landowners, who have not identified any concerns.

Lands

The landowners have not identified any concerns with Unions proposal.

Costs

As this project is part of Union's un-regulated storage business, any costs increase will not be borne by Union's ratepayers. The proposed changes will increase the costs of the project by less than \$10,000. These additional costs can be covered by the project contingencies.

Schedule

This change will not result in a change to the in-service date of the project.

Attachments

A map showing the pipelines and access roads that will be removed or abandoned can be found at Schedule 1.

Ontario Energy
Board
P.O. Box 2319
2300 Yonge Street
27th Floor
Toronto ON M4P 1E4
Telephone: 416-481-1967
Facsimile: 416-440-7656
Toll free: 1-888-632-6273

Commission de l'énergie
de l'Ontario
C.P. 2319
2300, rue Yonge
27^e étage
Toronto ON M4P 1E4
Téléphone: 416-481-1967
Télécopieur: 416-440-7656
Numéro sans frais: 1-888-632-6273



BY E-MAIL

July 24, 2017

W.T. Wachsmuth, RPF
Union Gas Limited
Senior Administrator, Regulatory Projects
P.O. Box 2001, 50 Keil Drive North
Chatham, ON N7M 5M1

Dear Mr. Wachsmuth:

**Re: 2017 Storage Enhancement Project – EB-2016-0322
Change Request No. 1**

The Ontario Energy Board (OEB) is in receipt of the letter dated July 7, 2017 from Union Gas Limited (Union) advising the OEB of changes to the 2017 Storage Enhancement Project (Change Request No. 1).

The changes are in relation to the method of abandonment of gathering pipelines and road access to wells D-230 and D-223. Both wells are in Union's Dawn 156 Storage Pool. 1

The well D-230 will be converted from an injection/withdrawal well to an observation well. For this reason, the gathering line connected to the well D-230 will not be needed and will be abandoned in place. Union explained that the abandonment in place is the proposed method because the pipeline is located under the access road which will remain in service to maintain the observation well. Union will follow the TSSA pipeline abandonment guidelines to complete the abandonment of the gathering pipeline in place. The landowner did not have any concerns.

Union will abandon the injection/withdrawal well D-223. The D-223 well will not be in use and neither the gathering pipeline nor the access road will be needed. Union explained that both the pipeline and the access road connected to the D-223 well will be

1 The application EB-2016-0322 was silent on the abandonment methods for these facilities.

removed from the ground. Union noted that the directly affected landowner agrees with the removal. Union estimated that this change will increase the costs of the project by about \$10,000.

As the Manager, Application Policy and Climate Change, I have been delegated the authority of the OEB under Section 6 of the *Ontario Energy Board Act, 1998* to determine whether Union's proposal will result in material changes to the leave to construct granted by the OEB in the EB-2016-0322 proceeding. I have been further granted the authority to approve any changes that I have concluded are not material.

I note that Union has discussed the changes with the directly affected landowners who have not identified any concerns. I also note that no new environment measures are required and that Union will follow its standard construction practices for the removal of the pipeline and the TSSA abandonment guidelines. The land will also be returned to their current condition once construction has been completed. I finally note that the costs associated with these changes will not be borne by ratepayers since these facilities are part of Union's un-regulated storage business.

Based on my review of the information provided, I find that the described change does not materially impact the leave granted by the OEB. I hereby approve the proposed change.

Yours truly,

Original signed by

Pascale Duguay
Manager, Application Policy and Climate Change



September 27, 2017

RESS

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

Dear Ms. Walli,

**Re: Union Gas Limited (“Union”)
2017 Storage Enhancement Project
Board File # EB-2016-0322**

Please find attached Change Requests 2, 3, and 4, for the above-noted project.

Union would appreciate your timely review and approval of these requests.

Union has discussed the well drilling change request with Mr. Jug Manocha at the Ministry of Natural Resources and Forestry and he has not identified any issues with the proposed changes.

In the event that you have any questions or would like to discuss in more detail, please do not hesitate to contact me at 519-436-5457.

Sincerely,

[original signed by]

W. T. (Bill) Wachsmuth, RPF
Senior Administrator, Regulatory Projects

cc: Nancy Marconi, OEB
Zora Crnojacki, OEB
Ritchie Murray, OEB
Jug Manocha, MNRF

REQUEST TO VARY

Project Name: 2017 Storage Enhancement Project

OEB file Number: EB-2016-0322

Request to Vary: 2

Description and Rationale for Change

Union is proposing to change the top-hole location for well UB14. The surface location will be moved approximately 5 metres south from the location identified in Union's pre-filed evidence.

During the drilling of UB14 the drill bit became stuck in the wellbore approximately 290 metres below the surface. Union made a number of attempts to remove the stuck drill bit but was unsuccessful in removing the bit and has subsequently abandoned the well.

Union has had discussions with MNRF regarding re-drilling UB14. Union will submit a Form 1 to the MNRF reflecting the updated name (UB14A) and well location. MNRF has informed Union that it can re-drill the well, utilizing the same drilling program, within 5 metres of the original location it is only required to submit an updated Form 1 not a new application.

Construction and Restoration Practices

Union is proposing to drill UB14A from the same well pad that was used for the original well drilling.

Union will implement additional measures during well drilling to reduce the risk of getting the drill bit stuck again. These include ensuring a good seal around the retrievable intermediate casing, additional monitoring of well cuttings and adding drilling jars earlier in the process.

Environmental

No new environmental mitigation measures will be required.

Consultation

Union has discussed the changes with the MNRF and the directly affected landowner.

Lands

The landowner has not identified any concerns with Union's proposal.

Costs

As this project is part of Union's un-regulated storage business, any costs increase will not be borne by Union's ratepayers. The proposed changes will increase the costs of the project by approximately \$300,000.

Schedule

This change will result in the final in-service date of the project being extended to April 2018.

Attachments

No attachments.

REQUEST TO VARY

Project Name: 2017 Storage Enhancement Project

OEB file Number: EB-2016-0322

Request to Vary: 3

Description and Rationale for Change

Union is proposing to delay the completion of wells D286 and D287 until the April 2018. Construction of the 600 metres of NPS 12 gathering pipeline within the Dawn 156 and Bentpath pool has also been delayed.

The drilling program in the Dawn 156 pool started late and could not be completed in the scheduled timeframe. It was necessary to put the pool back in service so that it could be filled during the normal injection season. As a result well drilling was suspended when the pool pressure exceeded 800 psi and will resume in the spring of 2018 as the pressure drops below this level.

Delivery timelines for suitable pipeline materials were delayed which resulted in a postponement of the installation of the gathering pipeline. The gathering pipeline installation will be completed during the fall pool stabilization and is expected to be completed by December 31, 2017. Final above grade well connections will be completed by April 2018.

Construction and Restoration Practices

There are no proposed changes to Unions construction and restoration practices in regard to well drilling or pipeline construction.

Environmental

No new environmental mitigation measures will be required.

Consultation

Union has discussed the changes with the directly affected landowners.

Lands

The landowners have not identified any concerns with Unions proposal.

Costs

No additional pipeline related costs are associated with the delays.

Schedule

This change will result in the final in-service date of the project being extended to April of 2018.

Attachments

No attachments.

REQUEST TO VARY

Project Name: 2017 Storage Enhancement Project

OEB file Number: EB-2016-0322

Request to Vary: 4

Description and Rationale for Change

In Union's pre-filed evidence it proposed to deepen well UB12 in the Bentpath pool. When UB12 was originally drilled it was not drilled to its proposed depth as a result of the drilling tools becoming stuck in the wellbore. Union had planned to remove the tools from the wellbore and further deepen the well as part of this project.

In 2017 Union attempted to remove this stuck drilling tool but was unsuccessful and therefore was not able to deepen the UB12.

Construction and Restoration Practices

There are no proposed changes to Union's construction and restoration practices in regard to well drilling or pipeline construction.

Environmental

No new environmental mitigation measures will be required.

Consultation

Union has discussed the changes with the directly affected landowners.

Lands

The landowners have not identified any concerns with Union's proposal.

Costs

As this project is part of Union's un-regulated storage business, any costs increase will not be borne by Union's ratepayers. As it was not possible to drill the well to the additional depth there were cost savings for the project.

Schedule

This change will not result in any changes to the in-service date of the project.

Attachments

No attachments.

Ontario Energy Board
P.O. Box 2319
27th Floor
2300 Yonge Street
Toronto ON M4P 1E4
Telephone: 416-481-1967
Facsimile: 416-440-7656
Toll free: 1-888-632-6273

Commission de l'énergie
de l'Ontario
C.P. 2319
27^e étage
2300, rue Yonge
Toronto ON M4P 1E4
Téléphone: 416-481-1967
Télécopieur: 416-440-7656
Numéro sans frais: 1-888-632-6273



BY E-MAIL

September 29, 2017

Union Gas Limited
Bill Wachsmuth
Senior Administrator, Regulatory Projects
50 Keil Drive North
P.O. Box 2001
Chatham ON N7M 5M1
bwachsmuth@uniongas.com

Dear Mr. Wachsmuth:

**Re: 2017 Storage Enhancement Project – EB-2016-0322
Request to Vary
Change Request Nos. 2, 3 and 4**

The Ontario Energy Board (OEB) is in receipt of your letter dated September 27, 2017 in which Union Gas Limited (Union) advised the OEB of three changes to the 2017 Storage Enhancement Project (Change Request Nos. 2, 3 and 4).

As the Manager, Applications Policy and Climate Change, I have been delegated the authority of the OEB under section 6 of the Ontario Energy Board Act, 1998 to determine whether Union's proposals will result in material changes to the Decision granted by the OEB in the EB-2016-0322 proceeding. I have been further granted the authority to approve any changes that I have concluded are not material.

I address each of the three change requests in the following sections.

Change Request No. 2

This request involves the relocation of the top-hole location for well UB14.

Union explained that during the drilling of UB14, the drill bit became stuck some distance below the surface. Union made attempts to remove the stuck drill bit but was unsuccessful. Union discussed the matter with MNR who advised Union that it can re-drill the well using the same drilling program within 5 metres of the original location and is only required to submit an updated Form 1 not a new application.

Union submitted that the proposed change will not alter or impact its originally proposed construction and restoration practices, environmental mitigation measures, stakeholder consultations, or land requirements. The project costs will increase by approximately \$300,000 and the project in-service date will need to be extended to April 2018. As this project is part of Union's unregulated storage business, the costs increase and delay do not affect Union's rate-payers.

Based on my review of the information provided, I find that the described change does not materially impact the Decision granted by the OEB. I hereby approve the proposed change.

Change Request No. 3

This request involves a delay in the completion of well D286, well D287, and the construction of 600 meters of NPS 12 gathering pipeline within the Dawn 156 pool until April 2018.

Union explained that a delay in obtaining suitable pipeline materials resulted in being unable to complete the Dawn 156 drilling program. As this pool needed to be filled during the normal injection season, the drilling program was suspended until the spring of 2018. The gathering pipeline installation will be completed during the fall pool stabilization and is expected to be completed by December 31, 2017. Final above grade well connections will be completed by April 2018.

Union submits that its proposed change will not alter or impact its originally proposed construction and restoration practices, environmental mitigation measures, stakeholder consultations, land requirements or costs. However, the project schedule will need to be extended to April 2018. There are no additional costs associated with the delays.

Based on my review of the information provided, I find that the described change does not materially impact the Decision granted by the OEB. I hereby approve the proposed change.

Change Request No. 4

This request involves the deepening of UB12 in the Bentpath pool.

Union explained that when well UB12 was originally drilled, the drill tools became stuck and the well was not taken to its full planned depth. The purpose of the deepening project was to remove the stuck tools and deepen the well to its originally planned depth. However, removal of the stuck tools was not possible and hence the well could not be deepened.

Union submitted that termination of this part of the project will not alter or impact its originally proposed construction and restoration practices, environmental mitigation

measures, stakeholder consultations, or land requirements for the other elements of this project. The project costs will decrease, but, as this project is part of Union's unregulated storage business, the cost savings do not affect Union's rate-payers.

Based on my review of the information provided, I find that the described change does not materially impact the Decision granted by the OEB. I hereby approve the proposed change.

Yours truly,

Original signed by

Pascale Duguay
Manager, Applications Policy and Climate Change



April 12, 2018

RESS

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

Dear Ms. Walli,

**Re: Union Gas Limited ("Union")
2017 Storage Enhancement Project
Board File # EB-2016-0322**

Please find attached Change Request 5 for the above-noted project.

Union believes that this change is not significant and would appreciate your timely review and approval of this request.

In the event that you have any questions or would like to discuss in more detail, please do not hesitate to contact me at 519-436-5457.

Sincerely,

[original signed by]

W. T. (Bill) Wachsmuth, RPF
Senior Administrator, Regulatory Projects

cc: Nancy Marconi, OEB
Zora Crnojacki, OEB
Ritchie Murray, OEB

REQUEST TO VARY

Project Name: 2017 Storage Enhancement Project

OEB file Number: EB-2016-0322

Request to Vary: 5

Description and Rationale for Change

In Change Request 3 Union identified that the final in-service date for this Project would be April 2018. Due to additional delays the final in-service for this Project will be the summer of 2018.

The drilling of the Bentpath UB14 well has been delayed. Completion of all of the wells in the 156 Pool took longer than anticipated and the drilling of the UB14 well has not been completed as quickly as planned.

Construction and Restoration Practices

There are no proposed changes to Unions construction and restoration practices in regard to well drilling or pipeline construction.

Environmental

No new environmental mitigation measures will be required.

Consultation

Union has discussed the changes with the directly affected landowners.

Lands

The landowners have not identified any concerns with Unions proposal.

Costs

No additional pipeline related costs are associated with the delays.

Schedule

This change will result in the final in-service date of the project being extended to the summer of 2018.

Attachments

No attachments.

Ontario Energy Board
P.O. Box 2319
27th Floor
2300 Yonge Street
Toronto ON M4P 1E4
Telephone: 416-481-1967
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Commission de l'énergie
de l'Ontario
C.P. 2319
27^e étage
2300, rue Yonge
Toronto ON M4P 1E4
Téléphone: 416-481-1967
Télécopieur: 416-440-7656



BY E-MAIL

April 24, 2018

Union Gas Limited
Bill Wachsmuth
Senior Administrator, Regulatory Projects
50 Keil Drive North
P.O. Box 2001
Chatham ON N7M 5M1
bwachsmuth@uniongas.com

Dear Mr. Wachsmuth:

**Re: Union Gas Limited
EB-2016-0322 2017 Storage Enhancement Project
Request to Vary / Change Request No. 5**

The Ontario Energy Board (OEB) is in receipt of your letter dated April 12, 2018, in which Union Gas Limited (Union Gas) requests a variance to the OEB approved 2017 Storage Enhancement Project (Project). In particular, this change request (Change Request 5) pertains to extending the final in-service date of the project to the summer of 2018.

In Change Request 3, Union identified the final in-service date for this Project as April 2018. However, the drilling of Bentpath UB14 was delayed, as the completion of all the wells in the 156 Pool took longer than anticipated and the drilling of the UB14 well was not completed as quickly as planned. Due to this delay, Union Gas proposes to extend the final in-service date for this Project to the summer of 2018.

Union Gas submits that this change will not modify the Project's originally proposed construction or restoration practices, environmental mitigation measures, land use requirements or capital costs.

As the Manager, Applications Supply and Infrastructure, I have been delegated the authority of the OEB under section 6 of the Ontario Energy Board Act, 1998 to determine whether Union's proposal will result in material changes to the leave to construct granted by the OEB in the EB-2016-0322 proceeding. I have been further granted the authority to approve any changes that I have concluded are not material.

Based on my review of the information provided, I find that the described changes do not materially impact the leave granted by the OEB. I hereby approve the proposed change.

Yours truly,

Original Signed by

Nancy Marconi
Manager, Applications Supply and Infrastructure

Appendix D

Summary of Landowner Complaints

SUMMARY OF LANDOWNER COMPLAINTS
2017 Storage Enhancement Project

Date of Complaint	Property Identification	Complaint	Resolution	Status
05/16/2018	NE Lot 31, Con 4, Dawn-Euphemia	When Well UB14 was being drilled the landowner stated it was very uncomfortable being outside with the constant noise of gas pressure being released. Landowner had holidays scheduled for the following week and wanted to spend time outside getting work done.	May 17 – Landowner meeting. During the meeting there was a noticeable noise level and a distinct odour of gas. We discussed safety, the noise interference and compensation for the inconvenience. Compensation was affirmed to the landowners for the inconvenience.	May 22 - Rational The construction activities resulted in a disturbance to the directly affected landowner. Resolved/Resolution Complete

Appendix E

Executive Certifications



2017 Storage Enhancement Project
EB-2016-0322

Decision and Order

April 13, 2017

I hereby certify Union Gas Limited has complied with the Decision and Order, Schedule 2, Appendix A, EB-2016-0322, Conditions 3.0 and 6. b) i.

Sept 4, 2019

Date

Michelle George

Michelle George

Vice President, Engineering

Enbridge Gas Inc. – Operating as Union Gas

Condition 3.0

Union shall implement all the recommendations of the Environmental Protection Plan filed in the proceeding, and all the recommendations and directives identified by the Ontario Pipeline Coordinating Committee review.

Condition 6.0

b) a final monitoring report, no later than fifteen months after the in-service date, or, where the deadline falls between December 1 and May 31, the following June 1, which shall:

i. Provide a certification, by a senior executive of the company, of Union Gas' adherence to Condition 3;

C of A Senior Executive Certification – Condition 3



2017 Storage Enhancement Project

EB-2016-0322

Decision and Order

April 13, 2017

I hereby certify Union Gas Limited has complied with the Decision and Order, Schedule 3, Appendix A, EB-2016-0322, Conditions 1.0 and 6. b) i.

Sept 4, 2019

Date

Michelle George

Michelle George

Vice President, Engineering

Enbridge Gas Inc. – Operating as Union Gas

Condition 1.0

Union Gas Limited (Union) shall rely on the evidence filed with the OEB in EB2016-0322 proceeding and comply with applicable laws, regulations and codes pertaining to the construction of the proposed wells.

Condition 6.0

b) a final monitoring report, no later than fifteen months after the in-service date, or, where the deadline falls between December 1 and May 31, the following June 1, which shall:

i. Provide a certification, by a senior executive of the company, of Union Gas' adherence to Condition 1;

C of A Senior Executive Certification – Condition 1

Appendix F

Photograph Inventory



2. The agricultural field in the Bentpath Pool was back in operation in 2019.



1. Well UB-08 in the Bentpath Pool was deepened during the Project and the land was restored to pre-construction conditions.



3. Access roads are constructed to be wide enough for one vehicle which reduces impacts to the agricultural field.



4. Once well drilling is completed, the temporary gravel pads are reduced in size to restore as much agricultural land as practical.