



**Newfoundland Transshipment Limited  
Hebron Expansion Project**

**Project Description**

**Department of Environment and Conservation  
Government of Newfoundland and Labrador**

**January 2014**

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## SECTION 1.0 NAME OF UNDERTAKING

Newfoundland Transshipment Limited (“NTL”), operator of the crude oil transshipment terminal at Whiffen Head, Placentia Bay, Newfoundland and Labrador wishes to undertake the expansion and modification of its terminal to accommodate the transshipment of crude oil from the Hebron offshore oil development. For purposes of this registration, the undertaking will be call the “NTL Hebron Expansion Project” or “NHEP”.

It should be noted that the construction of the NTL terminal in 1996 triggered both the federal and provincial Environmental Assessment (“EA”) processes. At that time, NTL completed an EA to meet the requirements under the *Environmental Assessment Act* (Canada), as well as the *Environmental Assessment Regulations* (Newfoundland and Labrador).

The federal process was triggered by:

- The construction of a marine terminal designed to handle vessels larger than 25,000 deadweight tons (“dwt”);
- The harmful alteration, disruption or destruction of fish habitat under the *Fisheries Act*; and,
- The requirement for a permit under the *Navigable Waters Protection Act* (“NWPA”).

The provincial process was triggered by the construction of a petroleum storage facility with a capacity greater than 2,000,000 litres (Section 45(1) of the *Envirnomenta Assessment Regulations*).

NTL’s EA was subject to both federal and provincial review and was subsequently approved.

NTL is proposing to modify the Whiffen Head terminal, within the existing boundaries, in order to enable the terminal to transship crude oil from the Hebron offshore oil field. To follow is a detailed project description of the NTL Hebron Expansion Project, as well as a review to ensure the original EA is compliant with current legislative requirements.

## SECTION 2.0 PROPONENT

**Name of Corporate Body:** Newfoundland Transshipment Limited

**Address:** PO Box 248, Station C, St. John's, NL A1C 5J2

**Chief Executive Officer:**

Name: Paul Adams  
Official Title: President  
Address: PO Box 248, Station C, St. John's, NL A1C 5J2  
Telephone Number: 709-570-3200  
Email Address: padams@ntl.net

**Principal Contact Person for purposes of environmental assessment:**

Name: Paul Adams  
Official Title: President  
Address: PO Box 248, Station C, St. John's, NL A1C 5J2  
Telephone Number: 709-570-3200  
Email Address: padams@ntl.net

## SECTION 3.0 THE UNDERTAKING

**Name of Undertaking:** NTL Hebron Expansion Project

**Purpose/Rationale/Need for the Undertaking:**

In January of this year, the five co-venturers of the Hebron offshore oil development sanctioned the \$14.1 billion project to develop this oil field. The current schedule calls for first oil being produced from this oil field by late 2017. The Hebron co-venturers have expressed a desire to have Hebron oil transshipped through the NTL terminal in Whiffen Head, Placentia Bay, Newfoundland and Labrador.

Crude oil from the Hebron field has substantially different characteristics (viscosity, specific gravity etc) than the crude oil from either of the other three producing fields offshore Newfoundland (Hibernia, Terra Nova, and White Rose). Accordingly, there is an expectation to keep Hebron crude segregated from the existing crudes. This will require the following modifications of the terminal to ensure that the needs of all of NTL's customers are met:

- Existing crude storage tanks 1, 2, and 3 will be provided with the capability to heat stored crude.
- The two existing decommissioned heating plants may be demolished and removed from the site and replaced with new heating plants.
- All associated piping between tanks 1, 2 and 3 and the loading platforms will be heat-traced and insulated.
- Geotechnical surveys and engineering will be performed to provide for the potential addition of up to two new storage tanks with working capacity of 500,000 bbls each. These tanks will be designed with all required piping and equipment.

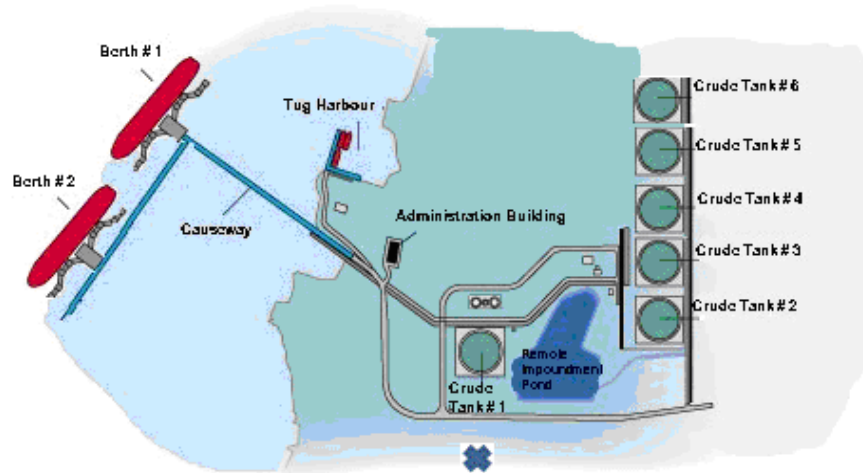
It should be noted that this work will occur within the existing boundaries of NTL's Whiffen Head terminal. From a marine perspective, the NHEP will not:

- involve any marine-related construction;
- result in any significant increase in the discharge of treated wastewater;
- result in tanker traffic that is beyond the 300 vessel berthings per year approved under the Navigable Waters Protection Program; and
- change NTL's diligence in the management of oil spill prevention, preparedness, and response.

## SECTION 4.0 DESCRIPTION OF THE UNDERTAKING

### GEOGRAPHICAL LOCATION

The NHEP will occur at the NTL crude oil transshipment terminal located at Whiffen Head on the eastern side of the head of Placentia Bay, Newfoundland & Labrador. The terminal's exact location is 47° 46' 26"N, 54° 00' 58"W. To follow is a schematic of the terminal as it currently exists:



The NTL terminal site lies within the boundaries of the Town of Arnold's Cove and the Town of Come-by-Chance. During the initial construction of the terminal in 1997-1998, NTL developed a road access to the site (Whiffen Head Road) in the Town of Arnold's Cove. The Town of Arnold's Cove maintains and services this road. There is no road access to the terminal site through the Town of Come-by-Chance. There will not be development of additional road access to the terminal as part of NHEP.

Attachments 1 and 2 show aerial views of Arnold's Cove and of NTL's Whiffen Head terminal, respectively.

### PHYSICAL FEATURES

The NTL Hebron Expansion Project scope has been divided into three main areas, as follows:

1. Design a crude heating system and modify existing tanks 1, 2 and 3 to ensure adequate flow of Hebron crude oil;
2. Heat tracing and insulation of existing piping; and
3. Potential new storage tanks and associated equipment.

The design shall be in accordance with the designs completed for the systems that have successfully operated at the terminal since it commenced operation in October 1998, and updated in accordance with revised standards, as applicable.

## **Design of Heating System/Tank Modifications**

Of the six crude storage tanks currently at the NTL terminal, three (tanks 1, 2 and 3) are insulated. The plan is to have Hebron crude stored in any two of these three insulated tanks. The assay of the Hebron crude indicates that a heating system will be required to provide heat to these tanks to offset the losses determined in the tank heat loss calculations. This new heating system will incorporate the following:

- A heating system, sized to provide heat replacement to the tanks. They will be of modular design, with all components totally enclosed from the elements;
- The existing insulated storage tanks (1, 2 and 3) will be used to store Hebron crude. Each tank will have a dedicated heating plant but the piping will be designed such that any heating plant can service any of the three tanks.
- Design parameters of the mixers for tanks 1, 2 and 3 will be determined by the Computational Fluid Dynamics modeling.

## **Pipe Heat Tracing and Insulation**

In order to ensure the flow of the more viscous Hebron crude, pipelines will be heated and insulated, as follows:

- All lines starting from the loading arms at loading platforms 1 and 2 and ending at crude storage 1, 2, and 3 will be heat traced, insulated, and clad.
- The heat tracing will be designed to maintain the crude oil at the temperature at which it is delivered to the terminal up to a maximum of 37° C. Heat tracing will not raise the temperature of the crude; rather, it will only replace heat lost to the surrounding air.

## **Potential New Storage Tanks and Associated Equipment**

In order to facilitate the effective segregation of the Hebron crude oil that will be transhipped through the terminal commencing in 2017, NTL and its customers are examining the cost/benefit of constructing up to two additional crude storage tanks. The NHEP incorporates the following elements:

- Up to two new 500,000 bbl working capacity (550,000 bbl total capacity) storage tanks and associated equipment and site works will be designed. (Attachment 3 is a site plan showing the proposed location of these tanks on the NTL terminal site.)
- The potential new storage tanks, Tanks 7 and 8 will be similar to other tanks at the terminal in terms of their size, height, nozzle locations, etc.
- The new tanks are not to be insulated or heated and will not be used to store the Hebron Crude.
- The elevation of the new storage tanks will be designed based on the requirement of proper drainage from the bermed area to the remote impoundment basin.

## ENVIRONMENTAL ISSUES AND MITIGATION

This section summarizes the findings of the EA completed in 1996, and any mitigation measures that will apply to NHEP. The EA identified fifteen valued ecosystem components (VECs). The following table outlines the VECs and identifies those that may require mitigation as a result of NHEP:

**Valued Ecosystem Components and Mitigation**

Environment	Valued Ecosystem	Mitigation Required
Marine	Marine Fish and Shellfish	No impact – No marine works included; no change in operational procedures
	Marine Benthic Communities	No impact – No marine works included; no change in operational procedures
	Marine-related birds	No impact – No marine works included; no change in operational procedures
	Marine Mammals	No impact – No marine works included; no change in operational procedures
	Marine Water Quality	No impact – No marine works included; no change in operational procedures
Commercial Fisheries	Commercial Fisheries	No impact – No marine works included; no change in operational procedures
Freshwater	Freshwater Fish	No impact – no flowing water bodies
	Surface Water Resources	A permit to infill a water body will be required by the NL Department of Environment and Conservation
Terrestrial	Terrestrial Mammals	No impact – no work to be completed outside current site boundaries
	Raptors	No impact – no work to be completed outside current site boundaries
	Ecological Reserves and Special Places	No impact – no work to be completed outside current site boundaries
	Heritage and Archaeological Resources	No impact – no work to be completed outside current site boundaries
Air Quality	Air Quality	Standard mitigation measures implemented during construction
Socio-Economic	Community Life	No impact – No significant change to current operations (See below)
	Employment, Business & Living Standards	No impact – No significant change to current operations (See below)

To follow is a discussion on the five environments that were addressed in the 1996 EA and the impacts that may be caused by NHEP:

### **1. Marine**

The major issues identified with respect to the marine environment for potential adverse effects were related to:

- Underwater blasting - No underwater blasting will occur as part of NHEP.
- Discharge of treated wastewater – Since commencing operations in 1998, NTL has had no issues related to the discharge of treated wastewater. There will not be a significant increase in the discharge of treated wastewater related to NHEP. Tie-ins to the existing storm water drainage and waste water handling systems will be made where disruption to existing services is minimized. The system modifications will be in compliance with the NL *Environmental Control Water and Sewage Regulations, 2003* under the *Water Resources Act* and as per the current Certificate of Approval to Operate (Approval # AA13-035577) (“COA”) issued from the Department of Environment, NL. All wastewater will be collected, treated (if required), tested as per our COA the requirements and discharged. The outfall is monitored regularly.
- Increased tanker traffic: The original terminal development was approved under NWPA (which was administered by the Canadian Coast Guard under the Department of Fisheries and Oceans (“DFO”))



at the time). The NWPA is now managed by Transport Canada (“TC”). The TC Navigable Waters Protection Program supports the regulation of works constructed or placed in, on, over, under, through, or across, navigable waters in Canada. The Approval issued on March 20, 1997 is based on 300 ship berthings per year. The addition of crude from the Hebron development will not result in ship traffic which exceeds the number approved. Officials at the TC Navigable Waters Protection Program were provided with the project description and vessel traffic estimates, and have advised that there is not a requirement to issue or amend the existing permit under the NWPA. (See Attachment 4 for correspondence from TC.)

- Accidental marine oil spills: NTL had developed an integrated management system aimed at preventing accidental marine oil spills. This system, which has proven quite successful to date, will continue following the NHEP and includes:
  - The establishment of a detailed vessel questionnaire to be completed by all tankers calling at the NTL terminal.
  - Vessel vetting by an independent vetting company;
  - Escort of laden tankers;
  - Use of experienced professional ship’s pilots for all vessels visiting the terminal;
  - Tanker/tug trials;
  - Voluntary reduction of vessel speeds during peak fishery months; and
  - Extensive and well-maintained terminal regulations, available on-line.

In addition, NTL has developed contingency plans for all potential emergency situations, including fire, medical evacuation, emergency shutdown, marine emergency, and on-land and marine oil and chemical spills. NTL has regular emergency drills and exercises to address these emergency situations.

Residual impacts related to construction, operation and decommissioning were rated adverse but not significant.

## **2. Commercial Fisheries**

Independent fish harvesters were concerned that the initial construction and operation of the terminal would limit access to traditional fishing grounds, change resource distribution and availability, damage gear and vessels, and lead to oil spills. Mitigation strategies were implemented to address these concerns and these strategies are ongoing:

- Compensation programs for construction-phase gear and vessel damage – This is no longer applicable and, given that there are no marine works included in the NHEP, there will be no impact related to it.
- Establishment of a fisheries/ community liaison committee – This committee has been active and continues to meet regularly.
- Scheduling traffic so that fishing activity is minimized – NTL participates in the voluntary reduction of vessel speeds during peak fishery months.

- Encroachment on habitat – NTL’s marine structures were designed to maximize the potential for new habitat. In addition, NTL created a lobster reef to promote early benthic stage development at Whiffen Head.
- Preparation of an Oil Pollution Emergency Plan (“OPEP”) – NTL has developed and maintained a comprehensive OPEP.

DFO was contacted to confirm that no further permits or amendments to existing permits are required. See Attachment 5 for correspondence with DFO.

NTL will continue to work with independent fish harvesters and inform them of their activities. With that said, there are no marine works are part of the scope of NHEP and no specific action is required in relation to it.

### 3. Freshwater Environment

The concerns for the freshwater environment under the EA centered on potential adverse affects associated with construction activities (sedimentation), runoff from salted roads, and on-land fuel or oil spills. At the time, mitigation measures included:

- Erosion and drainage control measures
- Oil spill prevention and response planning
- Bermed areas around tanks

During NHEP, NTL will address these issues related to the freshwater environment, as follows:

- Erosion and drainage control measures will be implemented during the construction phase as part of NHEP’s Environmental Protection Plan.
- Oil spill prevention and response planning are in place at the NTL terminal and will be updated to reflect the proposed expansion.
- Bermed areas around the proposed tanks will be constructed as per the NL Petroleum Storage Regulations. It should be noted that the remote impoundment basin, constructed at the initial phase of the terminal, is sized to enable the construction of four additional crude storage tanks.

As per the *Water Resources Act* (Newfoundland and Labrador), a body of water:

*“...means a surface or subterranean source of fresh or salt water within the jurisdiction of the province, whether the source usually contains liquid or frozen water or not, and includes water above the bed of the sea that is within the jurisdiction of the province, a river, stream, brook, creek, watercourse, lake, pond, spring, lagoon, ravine, gully, canal, wetland and other flowing or standing water and the land occupied by that body of water.”*

NHEP and its design engineers have reviewed various alternatives for the location of any additional storage tanks and have determined that the proposed location to the west of the existing tanks 5 and 6 (as outlined in Attachment 3) is most appropriate for the following reasons:

- The land to the east of existing tanks 2 through 6 rises steeply toward the site off the Placentia Bay traffic radar, making it exceedingly difficult to use for locating any new storage tanks.
- The land to the north of existing tanks 2 through 6 has a lower elevation than the current tanks, making it impossible for the terminal to gravity-feed second leg tankers from these tanks. As well, construction of tanks in this area will result in the Project having to disrupt a brook/stream in that area.
- The land to the south of the existing tanks also has a lower elevation than the current tanks, making it impossible for the terminal to gravity-feed second leg tankers from these tanks. In addition, this location would result in the Project having to infill standing bodies of water in this area.

The terminal uses water from an artesian well for use in washroom (toilets, sinks) and kitchen (sinks and dishwasher) facilities. As the water from this artesian wells in not suitable for drinking, NTL purchases bottled water for that purpose. The artesian well was drilled under a “Non Domestic Well Construction Permit” (Permit No. 97-006) issued by the Department of Environment and Labour on September 18, 1997. (See Attachment 8 for a copy of this permit). It should be noted that while this permit provided for the drilling of up to four artesian wells, only one is in use.

As the standing water in the location of the proposed new tanks at the NTL terminal appears on the provincial 1:50,000 topographic map series, a permit for infilling will be required. NTL has completed, the *Application for Permit to Alter a Body of Water* complete with *Schedule H (Infilling, Dredging & Debris Removal)* and submitted this application to the Water Resources Management Division of the Department of Environment and Conservation. (See Attachment 9 for copies of this application.)

#### **4. Terrestrial Environment**

During the 1996 EA, the primary concern for mammals and raptors in the area was loss of habitat and the impact of a fire or oil spill. Concern was also raised about the disturbance of archaeological resources during construction and the potential adverse effects of an oil spill or fire on ecological reserves and special places.

The proposed NTL Hebron Expansion Project will occur entirely within the existing boundaries of the transshipment terminal. As a result, there will be little adverse impact on the habitat for mammals and raptors and no further mitigation measures are required.

As noted earlier, NTL has a comprehensive plan for oil spill prevention and response. This plan has been, and will continue to be, reviewed and updated as circumstances evolve.

#### **5. Air Quality**

During the 1996 EA, concern was expressed that emissions from tankers and on-land storage tanks would have a detrimental effect in air quality in the area. NTL implemented the following mitigation measures to protect air quality include:

- Storage tank design complies with Canadian Council of Ministries of the Environment (CCME) guidelines. All tanks will comply with the CCME guidelines for the crude oil being stored in them.

The seals of the floating roofs inside the tanks are inspected annually to ensure that they are maintaining an effective barrier for air emissions.

- Equipment and engines are subject to regular maintenance in order to minimize emissions
- NTL has developed effective, comprehensive oil spill and fire prevention measures and response plans. These will continue to evolve as part of NHEP.

Air quality issues during construction are temporary and do not present a significant adverse effect.

## **DESIGN, CONSTRUCTION AND OPERATION**

Engineering design activities commenced in the summer of 2013, with Front End Engineering and Design (“FEED”) scheduled for completion in March 2014. Construction will occur over 2 ½ years, starting in the Spring of 2014 and concluding in the Fall of 2016. Operation of the terminal will continue well into this century, as all four offshore oil developments continue to produce oil.

Demands on the physical infrastructure and services will be temporary and will be experienced primarily during the construction phase. The health of residents is related to the potential for an oil spill or fire. Oil spill prevention and response planning are in place at the facility and will be updated to reflect the proposed expansion. Employment and business opportunities may be generated primarily during the construction phase and may result in a number of people coming to the area on a short-term basis.

Measures to be implemented, as per the EA for initial construction, include:

- Efforts will be focused on hiring local people who are trained and qualified for the positions available
- The NHEP will provide information on job opportunities and requirements to the local communities
- Whenever possible, materials, supplies and equipment for the facility will be purchased locally if they can meet schedule and quality specifications and cost competitiveness. If not available at the local level, then the facility will look to the regional, provincial and national level to obtain required items. Items will be required to meet the high standards expected by the facility.
- Local services will also be used when they are available if they can meet schedule and quality specifications and cost competitiveness. Again, the expectations of quality also apply.
- The health of residents is related to the potential for an oil spill or fire. Protection measures include:
- Oil spill prevention and response planning are in place at the facility and will be updated to reflect the proposed expansion
- Arrangements will continue with the North Atlantic Refinery and nearby towns for the fire-fighting services (should they be required). The company will update the established fire prevention and control plan.

## **OCCUPATION**

Engineering design activities will take approximately 15,000 person hours. Design activities will require engineers, computer specialists, draftspersons, contract, and administrative staff.

It is estimated that construction will generate approximately 500,000 person hours of work. The workforce will be comprised of approximately 100 full-time persons, with specialized trades on site as required. The maximum workforce will peak at about 250 persons.

As per the National Occupational Classification Matrix (2006), the following is an enumeration and breakdown of occupations anticipated for this undertaking:

Major Group	Subgroup and Description	Percentage of Workforce
<b>Group 72/73</b> Trades and Skilled Transport and Equipment Operators	<b>721</b> Contractors, supervisors, trades and related workers <b>724</b> Electrical trades and telecommunications occupations <b>725</b> Plumbers, pipefitters and gas fitters <b>726</b> Metal forming, shaping and erecting tools <b>729</b> Other construction trades <b>737</b> Crane operators, drillers and blasters	40
<b>Group 74</b> Intermediate Occupations in Transport, Equipment Operation, Installation and Maintenance	<b>742</b> Heavy equipment operators <b>744</b> Other installers, repairers and servicers	35
<b>Group 76</b> Trade Helpers, Construction Labourers and Related Occupations	<b>761</b> Trade helpers and labourers	20
<b>Group 0</b> Management Occupations	<b>071</b> Managers in construction and transportation	5

No direct hiring will occur during the construction phase, as all work will be contracted out. The percentage of local workers will be determined by the successful bidders of the various work packages to be tendered. It is anticipated that several factors will contribute to the contractor's hiring process, including potential union requirements and the use of existing employees. NTL will endeavour to optimize the opportunities for the local area and is committed to promoting the employment of Newfoundland residents.

The operations phase will result in a minimal increase to current staff levels (1-3 additional employees).

### [PROJECT RELATED DOCUMENTS](#)

As noted earlier, NTL submitted a detailed document in support of its 1996 EA. This report is available should it need review.

Since commencing operations, NTL has engaged independent contractors to complete comprehensive assessments of the environmental effects of its activities. Since 1997, there have been a total of eight assessments completed, with the latest of these occurring in the summer of 2013. While the report from the independent contractor for this latest assessment will not be finalized until mid-2014, NTL has not been advised of any preliminary adverse findings. The most recent report, related to the 2010 assessment, is available for review.

## SECTION 5.0 APPROVAL OF UNDERTAKING

The main permits, licenses, approvals and other forms of authorization required for the NTL Hebron Expansion Project are outlined in Attachment 6.

## SECTION 6.0 SCHEDULE

In order for the terminal to be ready to accept Hebron crude in 2017, the NTL Hebron Expansion Project must start construction in the Spring of 2014. Attachment 7 shows a preliminary construction schedule for NHEP.



**SECTION 7.0 FUNDING**

The NTL Hebron Expansion Project does not depend upon a loan or grant from a government agency. It will be funded entirely by the resources of Newfoundland Transshipment Limited.

*Feb 4<sup>th</sup>, 2014.*

Date



Paul Adams  
President,  
Newfoundland Transshipment Limited

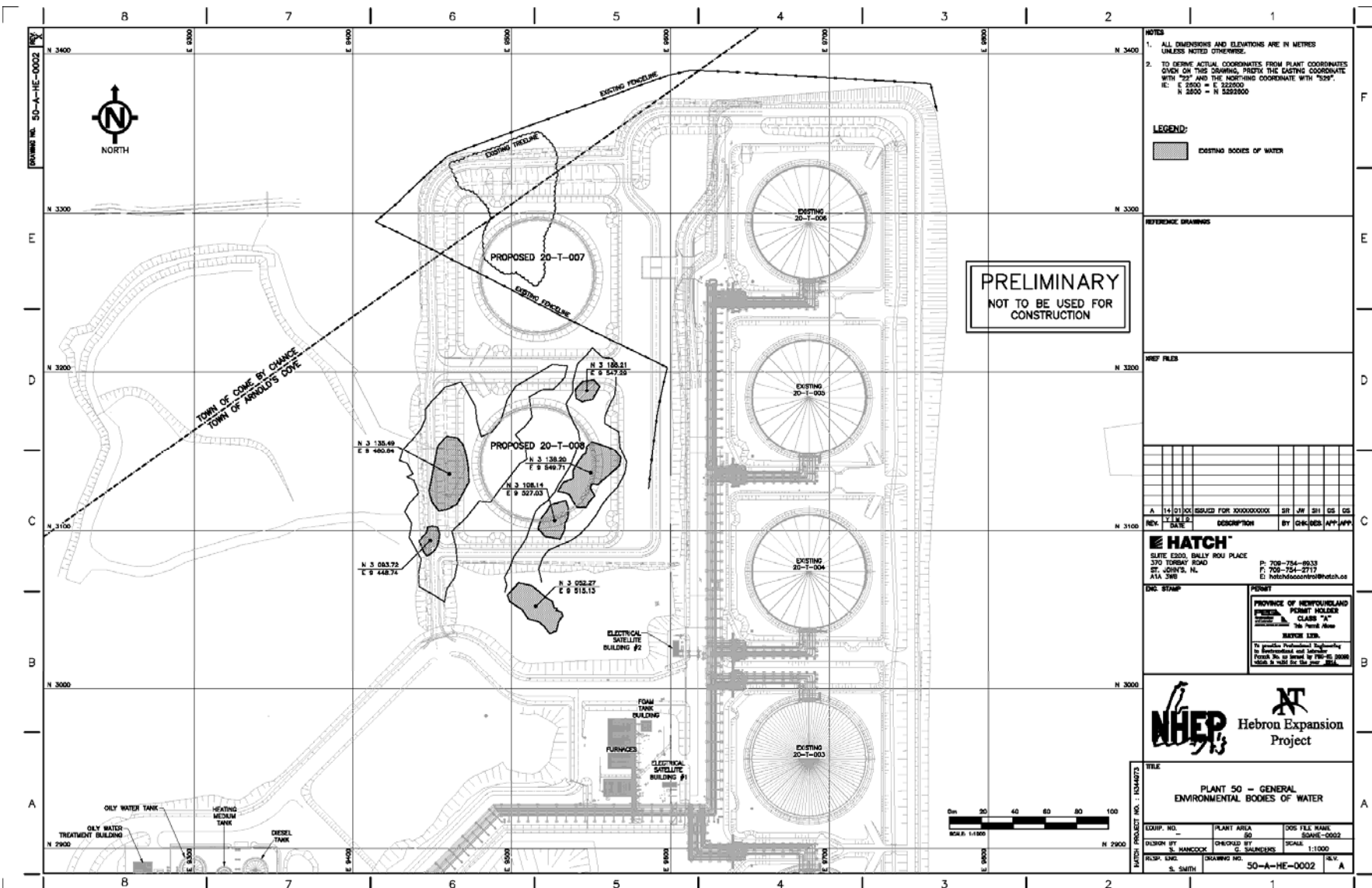
Arnold's Cove, Placentia Bay, Newfoundland and Labrador



### NTL Terminal, Whiffen Head, Placentia Bay, Newfoundland and Labrador



# NTL Hebron Expansion Project, Location of Proposed Crude Storage Tanks



**From:** [Bennett, William](#)  
**To:** [Green, Kimberlea \(HMM\)](#)  
**Subject:** RE: Transshipment Terminal Project  
**Date:** Thursday, November 14, 2013 9:31:21 AM

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Kim:

Thanks for the information. The NWPA scope of assessment relates to works being placed repaired or altered that are located in on over through or across navigable waters. Given that the proposed undertaking for the Trans Shipment Terminal does not involve such work the Navigable Waters Protection Act will not apply to this proposal as described..

Regards  
Bill

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**From:** Green, Kimberlea M [mailto:Kimberlea.Green@hatchmott.com]  
**Sent:** November 13, 2013 4:12 PM  
**To:** Bennett, William  
**Subject:** Transshipment Terminal Project

Hi Bill – as per our discussion, following is a brief description of the proposed undertaking at the Newfoundland Transshipment Terminal in Whiffen Head:

The proposed modifications to the NTL terminal include:

1. Crude tanks 1, 2, and 3 will be provided with the capability to heat stored crude.
2. The two existing decommissioned heating plants will be demolished and removed from the site and replaced with new heating plants.
3. All associated piping between tanks 1, 2 and 3 and the loading platforms are to be heat traced and insulated.
4. Geotechnical surveys and engineering will be performed to provide for the potential addition of up to two new storage tanks with working capacity of 500,000 bbls each. These tanks will be designed with all required piping and equipment.
5. Existing systems, instruments, piping and equipment are to be reviewed for compatibility with the higher viscosity crude and potential for increased storage capacity.
6. The addition of crude transfer pumps will be assessed.

As discussed, no in-water or marine works are to be undertaken, all aspects of the project are landside. NTL has an existing permit that was issued initially for the construction of the wharves and jetty (Permit No. BWO-8200-96-1125) in 1997. It is not anticipated that any amendment to this permit will be required, please confirm. Also, please treat this inquiry as confidential.

Regards,

## Correspondence from Fisheries and Oceans Canada

**From:** "XNFL, FPP" <[FPP-NL@dfo-mpo.gc.ca](mailto:FPP-NL@dfo-mpo.gc.ca)>  
**Date:** 27 January, 2014 9:05:41 AM AST  
**To:** Kimberlea Green <[kimberlea.green@gmail.com](mailto:kimberlea.green@gmail.com)>  
**Subject:** RE: Project review

Good morning Kimberlea,

From the description below, the proposed work does not require a DFO Authorization nor does it require a review by DFO. It does remain your responsible to ensure measures are put in place to mitigate against any potential harm to fish or fish habitat.

Thanks for contacting us.

Triage & Planning Unit  
Fisheries Protection Division  
Ecosystems Management Branch  
Fisheries and Oceans Canada  
80 East White Hills Road  
PO Box 5667  
St. John's NL A1C 5X1  
telephone: (709) 772-4140  
facsimile: (709) 772-5562  
email: [FPP-NL@dfo-mpo.gc.ca](mailto:FPP-NL@dfo-mpo.gc.ca)

-----Original Message-----

**From:** Kimberlea Green [<mailto:kimberlea.green@gmail.com>]  
**To:** XNFL, FPP  
**Subject:** Project review

Hi, I have reviewed the information on the website regarding projects near water. As per the self-assessment criteria, the proposed expansion of the Newfoundland Transshipment Facility does not require authorization under the Fisheries Act. There are no marine works proposed as part of the project. As part of the original construction of the facility, an outfall into Placentia Bay was constructed. The remote impoundment basin is sized to handle expected site runoff, it has the capacity to accommodate additional storm water collection from the proposed 2 new tanks. Settled storm water will continue to discharge through the facility outfall.

Construction of and repairs to water outfalls are exempt from review.

Construction of drainage channels are exempt from review.

Please advise/confirm that the project is exempt from review under the Fisheries Act.

Please do not hesitate to contact me if you have any questions, thanks.

Regards,  
Kim

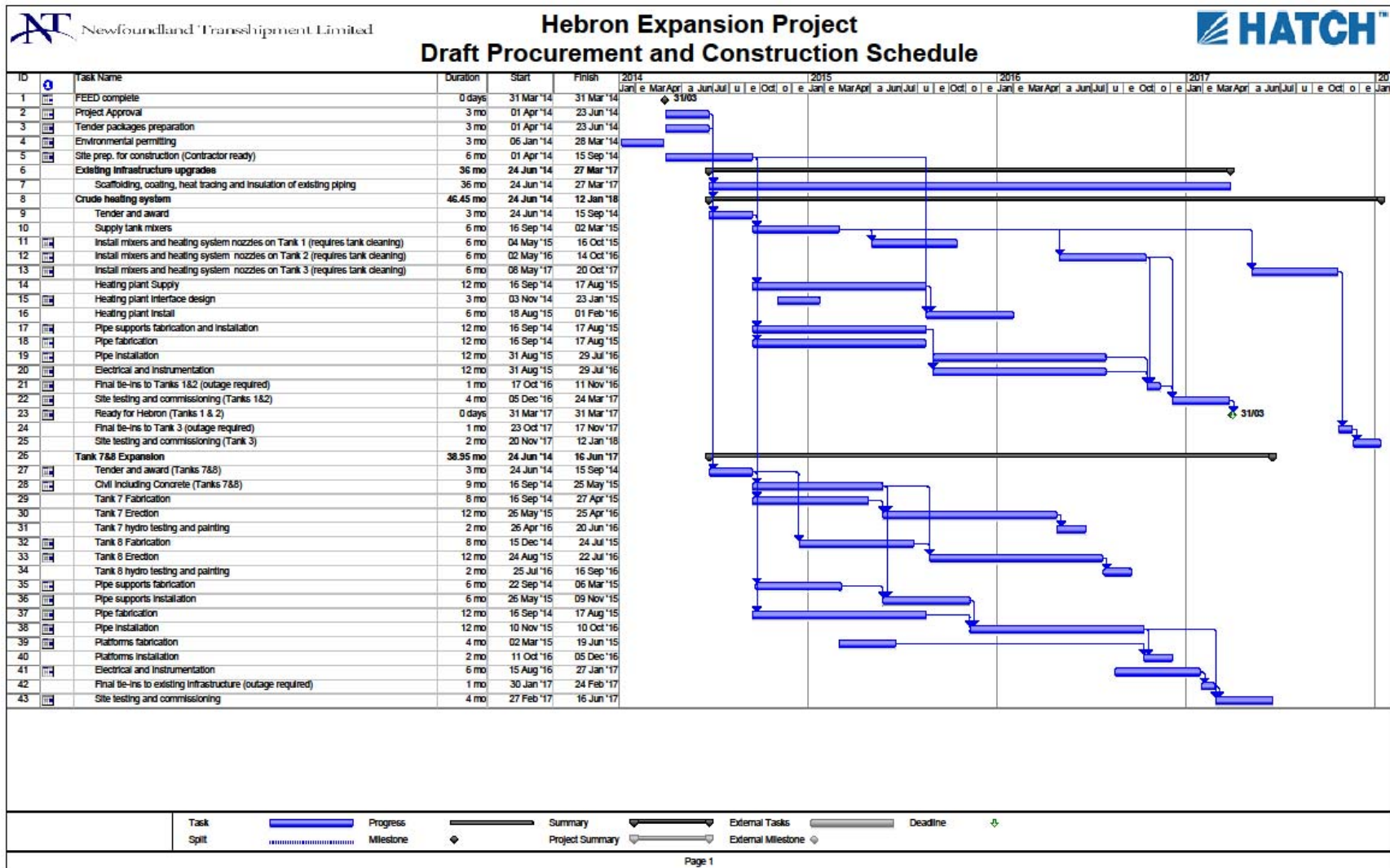
Kimberlea Green, MSc

[Kimberlea.green@gmail.com](mailto:Kimberlea.green@gmail.com)  
(902)402-3965

### NTL Hebron Expansion Project, List of Permits and Authorizations Potentially Required

Permit Potentially Required	Act/Regulation	Agency/Department	Activity	Requirements
Application for Permit to Alter a Body of Water; and associated Schedule H	Water Resources Act	NL Department of Environment and Conservation, Water Resources Division	Infilling of surface water feature at location of proposed new tanks	Complete application for Permit to Alter a Body of Water and Schedule H.
Approval under the Navigable Waters Protection Program	Navigable Waters Protection Act	Transport Canada, Navigable Waters Protection Program	Ship traffic, delivery of Hebron crude	Consult with TC-NWP regarding existing permit. NWP confirmed that no additional permit was required, nor was any modification to the existing permit. (See Attachment 4)
Request for Review under the Fisheries Act	Fisheries Act	Department of Fisheries and Oceans, Fisheries Protection Program	None.	DFO was contacted and confirmed that no additional permit was required, nor any modification to the existing permit. (See Attachment 5)
Release from Environmental Registration	NL Environmental Protection Act (Environmental Assessment Regulations)	NL Department of Environment and Conservation	The construction of a petroleum storage facility with a capacity greater than 2,000,000 litres.	An Environmental Assessment completed in 1996 for the initial construction of the terminal was approved both federally and provincially. The proposed expansion is entirely within the current site boundaries, and no marine works are included in the scope.

## NTL Hebron Expansion Project, Draft Procurement and Construction Schedule







GOVERNMENT OF  
NEWFOUNDLAND AND LABRADOR

Department of Environment and Labour

**NON DOMESTIC WELL CONSTRUCTION PERMIT**

Pursuant to the *Department of Environment Act, SN 1995 c E-13.1*

File No. 600 02 004 27

Date: September 18, 1997

Permit No.: 97-006

Proponent: Newfoundland Transshipment Project

Attention: Narcissus Walsh

Re: Water Supply Wells - Whiffen Head Transshipment Site

This permit authorizes the proponent to construct four(4) non domestic wells in accordance with the description provided in the application dated September 17, 1997 for the purpose of obtaining potable water.

This permit does not release the proponent from the obligation to obtain appropriate approvals from other provincial, federal and municipal agencies.

This permit is subject to the terms and conditions indicated in Appendix A (attached).

It should be noted that prior approval of any significant changes in the location, construction and operational procedures, and the purpose of the proposed well(s) must be obtained from the Department of Environment and Labour.

Failure to comply with the terms and conditions will render this permit null and void, place the proponent in violation of the Department of Environment and Labour and make the proponent responsible for taking any remedial measures as may be prescribed by this Department.



  
MINISTER

GOVERNMENT OF NEWFOUNDLAND AND LABRADOR  
Department of Environment and Labour

Form A-96

APPENDIX A

Permit No: 97-106

Terms and Conditions for Well Construction

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Newfoundland Transshipment Project - Whiffen Head

The drilling of four (4) water wells for the Whiffen Head transshipment terminal as located on a map attached to the non domestic well construction permit application is approved subject to the following conditions:

1. Each well must be pumped tested for a minimum of 48 hours and a report written in accordance with the publication *Guidelines for Aquifer Pumping Tests* available from Water Resources Division, Department of Environment and Labour. One copy to be sent to this department. This applies only to water wells that are not intended to be abandoned and sealed.
2. The wells are to be drilled by a Newfoundland licenced water well driller and constructed according to the *Well Drilling Act and Regulations (O.C.96-443)*. This includes the submission of well logs.
3. A copy of water quality sampling results for each well be sent to this department.
4. The proper sealing of any abandoned drilled water wells must be done according to Water Resources Division document "*Guidelines for Sealing Groundwater Wells*" available from this department.
5. Any increase in the rate of withdrawal as indicated in the original application must be approved by this department.

## Application to Alter a Body of Water (including Schedule H)



Government of Newfoundland and Labrador  
Department of Environment and Conservation  
Water Resources Management Division

### Application for Permit to Alter a Body of Water

As required under **Section 48** of the *Water Resources Act*, SNL 2002 c W-4.01

**APPLICATION CHECKLIST (The following information *must* accompany your application):**

- 'Application for Permit to Alter a Body of Water' (this form)
- Schedules 'A' to 'H' (as appropriate)
- 'Fee Schedule' and Application Fee Payment (or proof of payment).
- Location map (1:50,000 scale) and/or UTM coordinates indicating location of project
- Proof of Land Ownership (for Schedule H)

**IF ASSISTANCE IS REQUIRED IN COMPLETING THESE FORMS PLEASE CALL 729-2945 OR 729-5713.**

**YOUR APPLICATION WILL NOT BE PROCESSED AND MAY BE RETURNED IF ANY OF THE ABOVE INFORMATION IS NOT PROVIDED WITH YOUR APPLICATION OR IS NOT COMPLETED IN SUFFICIENT DETAIL.**

Please mail completed Application Forms to:

**Department of Environment and Conservation  
Water Resources Management Division  
PO Box 8700, St. John's NL A1B 4J6  
Attention: Clyde McLean, Manager, Investigations Section**

**Applicant Information:**

Name/Company/Agency: Newfoundland Transshipment Limited  
 Contact Person: Paul Adams, President  
 Address: Street/PO Box: P.O. Box 248, Station C  
 City/Town: St. John's  
 Province: NL Postal Code: A1C 5J2  
 Telephone No.: ( 709 ) 579-5513 Fax No.: ( )  
 E-mail Address\*: padams@ntl.net

**Owner Information:**  Same as above, or

Name/Company/Agency: \_\_\_\_\_  
 Contact Person: \_\_\_\_\_  
 Address: Street/PO Box: \_\_\_\_\_  
 City/Town: \_\_\_\_\_  
 Province: \_\_\_\_\_ Postal Code: \_\_\_\_\_  
 Telephone No.: ( ) \_\_\_\_\_ Fax No.: ( ) \_\_\_\_\_  
 E-mail Address\*: \_\_\_\_\_

**Application for Permit to Alter a Body of Water**As required under **Section 48** of the *Water Resources Act*, SNL 2002 c W-4.01**Alteration Type:**

Please select the Applicable Type(s) and attach completed Schedule(s) for each:

Type	Check (x)	Required Schedule
Culvert	<input type="checkbox"/>	<a href="#">Schedule A</a>
Bridge	<input type="checkbox"/>	<a href="#">Schedule B</a>
Dam	<input type="checkbox"/>	<a href="#">Schedule C</a>
Fording	<input type="checkbox"/>	<a href="#">Schedule D</a>
Pipe Crossing/Water Intake	<input type="checkbox"/>	<a href="#">Schedule E</a>
Stream Modification or Diversion	<input type="checkbox"/>	<a href="#">Schedule F</a>
Pedestrian/ATV/Snowmobile Bridge	<input type="checkbox"/>	<a href="#">Schedule G</a>
Other works within 15 metres of a body of water i.e.: Wharf, Boathouse, Infilling, Landscaping, Dredging, Debris Removal, Drainage Works, Settling Ponds, Other Minor Works	<input checked="" type="checkbox"/>	<a href="#">Schedule H</a>

**Project Information:**Project Name: Hebron Expansion ProjectWater Body Name: UnnamedCommunity Name: Town of Arnold's Cove

Area (if outside a community): \_\_\_\_\_

Is this project located in a Protected Public Water Supply Area? Yes  No Proposed Start Date: May 2014 Estimated Completion Date: September 2015**Reason(s) for the Project:**Construct two (2) additional oil storage tanks adjacent to six (6) existing oil storage tanks to enlarge the storage capacity of the existing facility.Date: 31<sup>st</sup> January, 2014

Signature: \_\_\_\_\_

  
 PRESIDENT, NTL

## Schedule H – Infilling, Dredging, Debris Removal

All applicants must fill out **Section A: Location**.  
For Infilling: fill out **Section B**. For Dredging or Debris Removal: fill out **Section C**.

### Project Description

#### Section A: Location

Site Name/No/Civic Address: Newfoundland Transshipment Terminal, Whiffen Head

Please mark location on a copy of a topographic map (preferably at 1:50,000 scale) or Google Earth Image and include as a separate attachment with the application.

If including a 1:50,000 Topographic Map, Please Provide:

Map No: \_\_\_\_\_

Or, UTM Coordinates:

N 5293136.20 \_E 229527.03 NAD 83\_ ZONE 1\_\_\_\_\_

#### Section A: Infilling

##### Land Ownership

**(Please note that approval may not be given if proof of ownership for area to be infilled is not provided or insufficient)**

Do you own the land on which the works are to be located?      Yes       No

**(Please provide proof of ownership)**

If not, who owns the land?

Private Ownership       Crown Ownership

**If this project is taking place on crown land, please give lease, licence or permit number:**

Reference No: \_\_\_\_\_ (Please attach tenure document)

**or** contact the Regional Crown Lands Office of the Department of Environment and Conservation at: **729-2654 (Eastern), 256-1400 (Central), 637-2393 (Western) or 896-2488 (Labrador).**

Landowner's Approval (If different from applicant):

Landowner's Name: \_\_\_\_\_

Address: \_\_\_\_\_

Postal Code: \_\_\_\_\_

Telephone: \_\_\_\_\_

Landowner's Signature: \_\_\_\_\_

**Section A: Infilling (Cont'd) - Details**

Purpose of Infilling:

Small water bodies are located on a bedrock outcrop that will be excavated to permit expansion of oil storage facility. Water will be removed by pumping/ditching, bog/overburden/bedrock will be removed, site will be infilled to construct new oil storage tanks.

Type/Size of Material Being Used (ex. armour stone, gravel, etc):

Site will be covered with rockfill and then layers of gravel and sand to provide bedding for oil storage tanks.

Volume of Material (in cubic meters):

60,000 cubic meters.

Details of Infilled Area (Please include a detailed dimensional drawing or sketch on survey as a separate attachment to this application)

**- Please show overall measurements (including distance from water to toe of infill) of works to be constructed in or near any body of water. Include relevant features such as buildings, roads, crossings, shorelines, etc and show grid north.**

**Construction**

Equipment to be used: Excavator, pumps, drills, trucks.

Proposed dewatering method: Ditching and pumping.

Briefly describe how erosion control and stabilization will be carried out during and after project completion:

Water will be pumped or drained from site by ditches. Settling ponds and silt fence shall be provided during construction. Ditches and sloped ground provided after project completion.

Briefly describe how site restoration will be carried out after project completion:

Area will not be restored to existing condition. Water will be pumped or drained from site to adjacent water bodies. Ditching/containment dykes will be provided around facility after project is completed.

**Section B: Dredging or Debris Removal**

Purpose of Dredging/Debris Removal:

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Volume of Material being Removed (in cubic meters):

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Details of Dredging/Debris Removal Area (Please include a detailed dimensional drawing or sketch on survey as a separate attachment to this application)

**- Please show overall measurements of works to be constructed in or near any body of water. Include relevant features such as buildings, roads, crossings, shorelines, etc and show grid north.**

**Construction**

Equipment to be used: \_\_\_\_\_

Proposed silt control method: \_\_\_\_\_

Briefly describe how erosion control will be carried out (if applicable):

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Briefly describe how site restoration will be carried out (if applicable):

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Please note that guidelines, departmental policies and application forms are available at:  
<http://www.env.gov.nl.ca/env/waterres/regulations/appforms/index.html>