



Sahtu Land and Water Board

Staff Report

Division: Land Program	Report No. 1
Date Prepared: February 15, 2018	File No. S18X-001

Meeting Date: February 28, 2018

Subject: Type A Land Use Permit Application submitted by Imperial Oil Resources Ltd. N.W.T.

1. Purpose/Report Summary

The purpose of this Report is to present to the Sahtu Land and Water Board for consideration:

- a) the new Land Use Permit (LUP or Permit) Application S18X-001 as submitted by Imperial Oil Resources Ltd. N.W.T (Attachment 1);
- b) Summary of stakeholder review comments and proponent responses;
- c) the draft Preliminary Screening Report;
- d) Engagement Record and Plan; and
- e) the draft terms and conditions for the new LUP.

2. Background

2.1 Process Requirements

Application Received: January 23, 2018

Application Deemed Complete: January 25, 2018

Application Forwarded for Review: January 25, 2018

Number of Review Agencies: 41

Review Period End Date: February 8, 2018

Proponent Response: February 15, 2018

End of 42-day timeline: March 6, 2018

The activities as described trigger a Type A Permit in accordance with paragraph 4(b)(i) of the MVLUR:

4 No person shall, without a Type A permit, carry on any activity that involves

- (b) on land within or outside the boundaries of a local government,
 - (i) the use of motorized earth-drilling machinery the operating weight of which, excluding the weight of drill rods, stems, bits, pumps and other ancillary equipment, equals or exceeds 2.5t, for a purpose other than the drilling of holes for building piles or utility poles or the setting of explosives within the boundaries of the local government.

2.2 Project Overview

Imperial Oil Resources N.W.T. Limited (IORL) submitted an application for a Type A Land Use Permit (S18X-001) to the SLWB on January 23, 2018. The application was deemed complete on January 25, 2018. The purpose of the application is to conduct a geotechnical field investigation to provide data needed to support detailed Long Term Management Facility (LTMF) design. The LTMF is described in the *Norman Wells Operations Interim Closure and Reclamation Plan* (ICRP) as accepted with conditions by the SLWB in January 2017. Drilling operations will be limited to the Norman Wells Operations lease area (i.e., previously disturbed, industrial land use). The project is set back from sensitive land uses, public transportation infrastructure and rights-of-way. No new access will be required. The facilities, services and utilities at Imperial's Norman Wells Operations (i.e., power, water, gas, waste and wastewater disposal) will be available to support the drilling program. Norman Wells Operations health, medical and emergency response services and resources will also be available if required during the project.

A total of 19 boreholes are proposed to be drilled, including:

- nine (9) deep boreholes (approximately 20 m depth) at the LTMF site. Four (4) strings of thermistors will be installed at the LTMF area, with each string of approximately 20 m long; and
- ten (10) shallow boreholes (approximately 5 m depth) at five (5) waste/impacted soil source areas (i.e. Areas of Potential Environmental Concern [APC]).

All of the drilling locations are limited to the Norman Wells Operations lease area and are proposed at the:

- 1) Mainland Sumps - proposed LTMF site;
- 2) Mainland Central - Battery;
- 3) Mainland East – Tank Farm;
- 4) Mainland East - Refinery Process Area;
- 5) Mainland East - B38X Area; and
- 6) Bear Island – Sumps.

Boreholes will be backfilled using cuttings, sand and/or cement-bentonite grout. Thermistors will be grouted in the space between the borehole and cement pad. The program is to be conducted during winter (March) so the winter roads can be used and the sites will be accessible for a truck mounted drill rig. No new site access is required.

2.3 Program Components

Management Plans

Spills will be managed according to Imperial's approved *Spill Contingency Plan* for the Norman Wells Operation under Water Licence S13L1-007. Emergency Response will be in accordance with the approved *Emergency Response Plan* for the Norman Wells Operation under water Licence S13L1-007. Waste generated in conjunction with this work will be managed as per Imperial's approved *Waste Management Plan* for the Norman Wells Operation under the Water Licence S13L1-007.

Equipment and Infrastructure

The following equipment is identified as required for the geotechnical drilling program in the LUP Application:

- Drill rig (truck mounted) for borehole drilling
- Water truck for water delivery
- Brine truck for brine storage and transport
- 2 Pick-up trucks for crew transport

There is no camp associated with this operation. Accommodations will be provided for using existing, commercial camp facilities located in Norman Wells.

Eligibility

Imperial Oil is eligible per subsection 18(b) of the MVLUR: "...has the right to occupy the land and either contracts to have the land-use operation carried out or is the person who is to carry out the operation."

Fees

An application fee of \$150.00 was received with the application.

Term

Imperial Oil has applied for a term of five years from 01/03/18 until 01/03/23.

3. Comments

Of the 41 organizations to which the application was distributed, 22 are represented within the Sahtu Settlement Area. Review comments were received from:

- Environment and Climate Change Canada (ECCC)- no comments or recommendations;
- Government of the Northwest Territories – Environment and Natural Resources (GNWT-ENR) – no comments or recommendation;
- Indigenous and Northern Affairs Canada (INAC) – NWT Inspector - two comments on the Permit conditions

The Review Comment Summary Table and submitted letter from ENR are attached to this report (Attachment 2).

3.1 Permission of Land Owner, Community Consultations and Traditional Knowledge

The program will take place on the Norman Wells Operation lease lands within the Proven Area.

An Engagement Record and Plan was submitted with the application describing the record of engagement in relation to the ICRP and the LTMF and associated development activities since 2014. This includes:

- all meeting minutes from three meetings that were held with a Working Group that was established in 2014, at the request of the SLWB, to provide a formal mechanism for meeting with stakeholders interested in the development of Imperial's ICRP for the Norman Wells Operations; and
- Additional engagement specific to the LTMF (i.e., versus the overall ICRP) included an initial written notification for the LTMF, which was provided to Affected Parties in October and November 2017 during Imperial Norman Wells Operations Neighbour Nights which were

held in all five Sahtu communities for dedicated discussions with community members regarding activities involved in the LTMF development, as well as overall schedule objectives.

For the Engagement Plan, Imperial anticipates engagement with the Town of Norman Wells (Catherine Mallon) in relation to the geotechnical drilling program to discuss any concerns or questions the Town may have with respect to the LTMF geotechnical investigation program and to ensure the Town is updated on the progress of the project, as appropriate. Engagement is expected to be in the form of email, telephone conversation or in person meeting.

Engagement activities for the geotechnical drilling program will be conducted in alignment with the objectives outlined in the Imperial Norman Wells Operations *Community Engagement Plan for Sahtu Settlement Area Communities*, as filed with the SLWB in association with Water Licence S13L1-007.

Traditional Environmental Knowledge (TEK) has been collected for the Norman Wells Operation under the Water Licence S13L1-007. No additional TEK was required for this application.

No reviewer comments were related to engagement.

3.2 Management Plans

Waste Management Plan

Wastes associated with drilling operations will be managed in accordance with the *Norman Wells Operations Waste Management Plan (WMP)* (June 2015) as filed with the SLWB in association with Water Licence S13L1-007.

Garbage: Domestic garbage/non-hazardous waste will be managed in accordance with *Imperial's Waste Information Table (Domestic Garbage)* located in the WMP Appendix B, page 10. Domestic garbage/non-hazardous waste will be taken to designated blue metal bins around the Operations site. These will be collected and disposed of by the local contractor hired by Imperial.

Geotechnical drilling waste:

- Drilling waste (i.e. soil cuttings) will be treated as impacted soils and managed in accordance with *Imperial's Waste Information Table (Impacted Debris and Soil – Oil/Produced Water/Condensate/Chemicals)* located in the WMP Appendix B, page 14. Soil cuttings/impacted soil will be stored in sealed and properly labelled waste totes in the designated area of the Waste Storage Yard (imperviously lined and bermed area).
- Liquid drilling wastes (i.e. spent brine) will be managed in accordance with *Imperial's Waste Information Table (Impacted Debris and Soil – Oil/Produced Water/Condensate/Chemicals)* located in the WMP Appendix B, page 14. Brine will be transported to the F-31X Treatment and Injection Facility for disposal.

Spill Contingency Plan

Drilling operations will be covered under the *Norman Wells Operations Spill Contingency and Response Plan (SCARP)* (November 2015) as filed with the SLWB in association with Water Licence S13L1-007.

The SCARP outlines response actions and mitigation procedures for potential spills of any size and identifies key response personnel and their roles and responsibilities in the event of a spill as well as the equipment and other resources available to respond to a spill. It details spill response processes that will minimize potential health and safety hazards, environmental damage, and cleanup efforts.

The plan has been prepared to ensure quick access to all the information required in responding to a spill. Relevant information contained in the SCARP will be reviewed prior to commencement of drilling operations, including response actions and mitigation procedures for potential spills. Key response personnel, equipment and other resources from the Norman Wells Operations will be available to respond in the event of a spill, as required.

Drilling operations will also be covered under the *Norman Wells Operations Emergency Response Plan (ERP)*, as filed with the SLWB in association with Water Licence S13L1-007. The drilling subcontractor will also be required to: ensure personnel are trained in spill prevention and response measures; provide spill kits complete with soaker pads, oil-absorbing materials and containment booms on equipment, other equipment as required; and prepare and implement spill prevention and contingency measures appropriate to the nature of their work.

3.3 Potential for Environmental Impacts and Mitigation Measures

Drilling operations will be limited to the Norman Wells Operations lease area (i.e., previously disturbed, industrial land use). Ground disturbance protocols will be applied where required. Norman Wells Operations site safety and environmental orientations will be completed prior to the work. No new access is anticipated. Access across the Mackenzie River will be during frozen conditions and be completed in accordance with Norman Wells Operations protocols. Potential environmental impacts are associated with accidental releases and wildlife.

The following sections of the Preliminary Environmental Screening Report form provide specific and important information that may be of interest to the Board:

Physical/Chemical Effects

Ground Water - Water Table Alteration; Water Quality Changes; Infiltration Changes

Surface Water - Water Quality Changes

Noise - noise in or near water

Land – soil contamination; ground disturbance

Non-renewable Natural Resources – resource depletion

Air/Climate/Atmosphere – Greenhouse Gases

Biological Environment

Vegetation – damage to ground vegetation and permafrost

Wildlife and Fish – population reduction; health changes; behavioural changes

Interacting Environment – Wildlife habitat/ecosystem composition changes

Social and Economic

Human Health Hazard

All relevant environmental impacts and mitigation measures are addressed in the Preliminary Environmental Screening (Attachment 3).

3.4 Preliminary Environmental Screening

Under the Preliminary Screening Requirements of section 124(1) of the *Mackenzie Valley Resource Management Act* (MVRMA), the Board must conduct a preliminary screening of any proposed development prior to the issuance of a Licence, Permit, or Authorization, unless it is exempt from Part 5 of the MVRMA.

Based on the information provided in the application and by review agencies (see below), a Preliminary Environmental Screening (PES) was performed. The draft PES is attached (Attachment) The report concludes that the environmental impact of the proposed project can be mitigated with known technologies and no significant public concerns have been raised. The Draft Preliminary Environmental Screening Report and a Draft Staff Report was forwarded to the MVEIRB on February 2018 and the final version will be forwarded to the MVEIRB once it has received approval from the Board.

3.5 Conformity with Land Use Plan

The location of the drilling program falls within Special Management Zone #63, the Deh Cho or Mackenzie River of the Sahtu Land Use Plan. The activity is taking place within the municipal boundaries of the Town of Norman Wells and is therefore exempt from land use plan conformity requirements. Compliance with section 47 of the MVRMA has been met.

3.6 Draft Permit

A draft Land Use Permit with Terms and Conditions has been prepared (Attachment 4). Reviewer comments requested some changes to the draft conditions.

3.7 Security Deposit

There were no comments received about requirements for security for this Land Use Permit. Imperial has posted over one million dollars of security for the Water Licence S13L1-007 for the main operation.

4. Other Agency Comments

The application was distributed to members of the Imperial Oil Distribution List; which includes forty-one (41) review organizations, requesting a reply by February 8, 2018. Three (3) organizations responded, only one of which had comments on the application and recommendations as described below:

INAC – NWT Inspector (ID 1,2) – recommended some changes and clarifications and additions to the Land Use Permit conditions.

Board Staff Response : Permit conditions have been modified to include the recommendations by the Inspector.

5. Conclusion

The Preliminary Environmental Screening Report did not identify any Significant Adverse Environmental Impacts or Public Concerns with the proposed project. All potential environmental impacts identified by review agencies can be mitigated with known technology and have been addressed in the Term and Conditions of the Land Use Permit.

The draft Permit Conditions are based upon the standard condition list, and stakeholder comments. Board staff conclude that the conditions contained within this draft Permit should mitigate the potential environmental impacts this development may have on the land and water.

A draft Land Use Permit cover page, reasons for decision and issuance letter are attached (Attachments 5, 6, and 7).

6. Recommendation

Board staff recommend the Board proceed with the regulatory process for this Land Use Permit including:

- 1) Approve the draft **Preliminary Screening**;
- 2) Approve the **draft LUP**, with a term of five years;
- 3) Approve the **Engagement Plan**
- 4) Approve the draft **Reasons for Decision** and draft **Letter of Issuance** prepared for Board consideration

7. Reference Material Attached

- 7.1. Land Use Permit [Application](#) (hyperlink only)
- 7.2. Review Comment Summary Table
- 7.3. Preliminary Environmental Screening Report
- 7.4. Draft Land Use Permit Term and Conditions
- 7.5. Draft Permit Cover Page
- 7.6. Draft Reasons for Decision
- 7.7. Draft Issuance Letter

Respectfully submitted,



Bonnie Bergsma
Regulatory Specialist

Executive Director Comments:

A handwritten signature in black ink, appearing to read 'Paul Dixon', with a stylized, cursive script.

Paul Dixon
Executive Director