



Sahtu Land and Water Board

Staff Report

Division: Land Program	Report No. 1
Date Prepared: February 13, 2020	File No. S20S-002

Meeting Date: February 14, 2020

Subject: Type A Land Use Permit Application submitted by GNWT – Department of Infrastructure

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 S20S-002 as submitted by GNWT – Department of Infrastructure (INF) (**Attachment 1**);
- b) Summary of stakeholder review comments and proponent responses;
- c) the draft Preliminary Environmental Screening Report;
- d) Land Use Plan Conformity;
- e) Management Plans (Spill Contingency and Waste Management); and
- f) the draft terms and conditions for the new LUP.

2. Background

2.1 Process Requirements

Application Received: January 17, 2020

Application Deemed Complete and Forwarded for Review: January 24, 2020

Number of Review Agencies: 39

Review Period End Date: February 5, 2020

Proponent Response: February 7, 2020

Board Meeting: February 14, 2020

End of 10-day pause period for Preliminary Screening: February 24, 2020

End of 42-day timeline: March 6, 2020

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

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

- (a) on land outside the boundaries of a local government,
 - (ii) the use of a vehicle or machine of a weight equal to or exceeding 10 t, other than on a road or on a community landfill, quarry site or airport,
- (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

The Project will be completed 14 km east of Tulita in the Sahtu region of the Northwest Territories (NWT). The Project area is the current watercourse crossing at 12 Mile Creek Bridge on the Mackenzie Valley Winter Road (MVWR). GNWT-INF is planning to replace the water crossing and the engineering design and construction must be informed and supported by the recommendations of a geotechnical assessment in which boreholes are drilled to characterize subsurface conditions.

Site Access

Access to the Project area and each drilling location will be overland using the existing winter road. As drilling will be completed on the winter road, no clearing of vegetation will be required as part of the Project.

Boreholes

The boreholes will be completed using track or truck mounted auger, or core drill. A minimum of four 150 mm diameter boreholes, two on either side of 12 Mile Creek, will be completed. If refusal of the auger drill is encountered prior to reaching the targeted depth of 30 metres, up to three additional borehole locations in vicinity of the initial borehole will be advanced to confirm the cause for refusal (i.e. boulders, etc). Where bedrock is encountered, the boreholes will be advanced 3 m into the bedrock using the core drill.

Use of water will be minimal as the auger drill does not require water while the core drilling method requires a small quantity of water (less than 0.5 m³ of water per borehole). Given the quantity of water required for each borehole and the number of boreholes, approximately 3 m³ of water would be used which is below the 100 m³ threshold for a Water Licence.

Upon drilling, stratigraphy encountered in the boreholes will be logged and samples of the embankment may be collected. Upon completion of each borehole, the Contractor will backfill the borehole immediately with drill cuttings. The **Dept Lands - Sahtu** (ID 9) noted that permafrost is prevalent throughout the area at both shallow and deep depths. Dept of Lands-Sahtu recommended a Permafrost Protection Plan be prepared that outlines the additional mitigation measures or contingencies that could be implemented if permafrost is encountered during drilling. This issue is discussed further in section 4.1.

At the watercourse crossing, drilling will be done as close to the watercourse as possible along the alignment without drilling through the ice and water of the watercourse bed and staying outside of the ordinary high-water mark. It is recommended that the standard setback of 100 m be modified to 30 m. Any drilling closer than 30 m would require written authorization from an Inspector. Since all of the work will be completed outside of the watercourse during winter, the potential impact on fish and fish habitat is low. **DFO** (ID1) commented that the activity as proposed will not require an authorization under the Fisheries Act or the Species at Risk Act.

2.3 Program Components

2.3.1 Management Plans

The following Management Plans and Studies were submitted with the Application:

- Waste Management Plan
- Spill Contingency Plan.

Discussion of these plans follows in section 3.

2.3.2 Equipment and Infrastructure

The Application included only a typical or anticipated equipment list including the following:

- Geotechnical drill rig (track or truck mounted) - 1
- Service Pickup ½ to 5 tonne capacity – 2 to 4
- Highway tractor trailer with lowboy or highboy – 1 to 2
- Portable Diesel and Gas Generators – 2 to 6
- Portable lighting/generator set – 2 to 4

The exact types, numbers, and weights of the equipment which will be used are not known until a contractor has been selected. Board staff note that the list is missing the core drill unit and a fuel truck. **Dept of Lands – Sahtu (ID3)** recommended that the updated equipment list be provided to them as well as the SLWB.

A camp will not be required for the Project. Workers will travel daily from Tulita.

2.3.3 Fuel

Diesel and gasoline are the primary fuels to be used, and these fuels will be stored in external fuel tanks mounted in the backs of pickup trucks (tidy tanks). No stationary fuel storage tanks will be required. **Dept of Lands -Sahtu (ID8)** requested that INF provide a more reasonable estimate of the amount of fuel required to conduct this Project. INF will provide the SLWB and the Inspector with an updated list of fuels, tanks, and storage volumes prior to the start of work.

Fuel transfer will be from tidy tanks or fuel trucks using the attached pumps and hoses. The fuel transfer methods will be determined by the Contractor chosen. **Dept of Lands -Sahtu (ID7)** requested a copy of the final fuel transfer protocols for their review. Standard conditions have been included in the Permit to ensure protection of the land and water.

2.3.4 Eligibility

GNWT-INF 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."

2.3.5 Fees

The territorial government is exempt from the permit application fee of \$150.00.

2.3.6 Term

The Project is proposed to be completed over 2-3 days in March of 2020 following approval and prior to closure of the MVWR at the end of March 2020. To accommodate potential delays or setbacks in project execution, the INF requests that the permit be valid until March 31, 2022.

3. Analysis and Discussion

3.1 Public Review Process

Of the 39 organizations on the Tulita District Distribution List to which the application was distributed, 17 are represented within the Sahtu Settlement Area. Review comments were received from:

- **Department of Fisheries and Oceans Canada (DFO)** - the activity as proposed will not require an authorization under the Fisheries Act or the Species at Risk Act;
- **Fort Norman (Tulita) Renewable Resource Council (TRRC)** – offered comments on Traditional Knowledge Study, Bear Den Study and Environmental Monitors;
- **Government of the Northwest Territories – Environment and Natural Resources – Environmental Assessment and Monitoring (GNWT- ENR-EAM)** – offered comments and recommendations for protection of Species at Risk and supported the wildlife mitigation and monitoring measures outlined in the application and supporting documents;
- **Government of the Northwest Territories – Lands – Sahtu Region (GNWT-Lands, Sahtu)** – offered comments and recommendations on updates to Spill Contingency and Waste Management Plans, need for contingency plans for potential permafrost and erosion impacts, updates to equipment list and methods of fuel transfer;
- **Government of the Northwest Territories – Prince of Wales Northern Heritage Centre (GNWT-PWNHC)** – offered comments on permit conditions and need for an approval letter from them.

The Review Comment Summary Table plus submitted letter from GNWT-ENR is attached to this report (**Attachment 2**).

3.2 Permission of Land Owner, Community Consultations, Traditional Knowledge, Archaeological Overview Assessment, and Den and Nest Survey Report

Permission of Land Owner

The Project is planned to be completed within the 60 m right-of-way of the MVWR which is located on territorial land.

Community Consultation

Consultation and Engagement for this application will be completed following the **approved [Engagement Plan](#)** for the Great Bear River Bridge Geotechnical Investigation Project (S19S-001) since the affected parties and the timelines for the two Projects directly overlap.

The following specific engagement activities were provided in the application:

- **February 2020** - GNWT-INF will meet with each organization and the public to outline the Project as part of the wider Mackenzie Valley Highway and Great Bear River Bridge engagement activities.
- **Upon Approval of Permit** - INF will also provide a letter summarizing the project activities to the affected parties in the Tulita District, notifying them of the drilling activity proposed at 12 Mile Creek. These parties include:
 - Tulita Dene Band,
 - Tulita District Benefits Corporation,
 - Tulita District Land Corporation,

- Tulita Land Corporation,
 - Fort Norman Métis Community,
 - Hamlet of Tulita, and
 - Tulita Renewable Resources Council.
- **Engagement Triggers** - INF will contact the communities at points in the process:
 - 1) receipt of the LUP;
 - 2) award of the drilling contract;
 - 3) prior to the start of field work; and
 - 4) end of the field work.

It is Board staff's assessment that the Plan meets the criteria of the Policy.

Traditional Knowledge

A Traditional Knowledge Study was not completed for the Project given the limited scope, short duration and all work is being completed within the previously disturbed ROW of the MVWR. If concerns are identified by the communities during engagement, INF will work to address the concerns at that time.

TRRC (ID 1) requested a TK study be completed by the community. Board staff agree with INF that a TK Study is not required for a Project of this short duration and limited scope. However, INF has responded that if there are particular concerns, they would be willing to have a discussion. Board staff also recommend that a TK Study would be beneficial for the construction phase.

Archaeological Overview Assessment (AOA)

Stantec prepared an AOA for the entire Project footprint of the MVH proposed alignment as documented in the Project Description Report for construction of the MVH (EBA 2011) with a 500 m buffer on either side of the alignment.

Based on the findings of the AOA, areas identified as high archaeological potential would require an AIA be conducted in advance of any potentially land-altering Project activities. No further archaeological work was recommended for areas previously assessed as having low archaeological potential or previously disturbed areas such as the winter road alignment. Since these conditions are met by this Project, the geotechnical activities can take place prior to a pre-impact Archaeological Impact Assessment (AIA) being conducted.

Avoidance of known archaeological sites by 150 m is recommended.

If during the Project, archaeological sites are identified, INF and its Contractor will adhere to the conditions outlined in the LUP including but not limited to contacting the SLWB and the Prince of Wales Northern Heritage Centre.

PWNHC provided two comments indicating that AOA and AIA permit conditions would not be required for this Project as all work will be completed in the existing winter RoW and the general project area has been subject to a previous AIA Study permitted by them (ID 1); and that the AOA prepared for this Project needed to be submitted to them for their approval (ID 2). Board staff recommend that the Board request submission of PWNHC approval prior to project commencement.

Den and Nest Survey Report

Due to the limited spatial extent, short duration, and low magnitude of disturbance, long-term or irreversible effects to wildlife are not anticipated during the Project. However, if required by the Department of Environment and Natural Resources (ENR), a den and nest survey will be completed in proximity of the Project work sites prior to the completion of the Project.

TRRC (ID2) recommended that a Bear Den Study be completed prior to start of the Project. Board staff support the response of INF that this short-term small project should not require a bear den study; however, recommend that Wildlife Monitors from Tulita be present during Project activities to ensure no disturbance to hibernating bears or beaver lodges in the area (**TRRC** ID3).

3.3 Required Management Plans

3.3.1 Waste Management Plan

A Waste Management Plan (WMP) was submitted for this Project. The following are the primary waste management activities:

- Non-hazardous domestic garbage will be placed in odor and animal proof secure waste containers and progressively removed from the Project work site and disposed of at the solid waste facility in The Hamlet of Tulita.
- Sewage and grey water will be stored in a portable washroom facility on the Project site and removed off-site to Hamlet of Tulita sewage disposal facility.
- No hazardous waste is expected to be generated from Project activities; however, in the event of a spill any wastes cleaned up will be disposed of at an approved facility;
- Drill cuttings will be placed back into the borehole.

Board staff reviewed the Waste Management Plan (Version 1.0) with consideration of the basic requirements of MVLWB *Guidelines for Developing a Waste Management Plan* (2011) and have the opinion the Plan conforms with the intent of the Guidelines.

There were a few comments submitted regarding the Waste Management Plan. **Dept of Lands - Sahtu** (ID 2) requested written confirmation from the Hamlet of Tulita that wastes could be disposed of at their facilities. A letter will be provided prior to start of the Project. **Dept of Lands - Sahtu** (ID 3) recommended to add the Department of Lands, Sahtu Region to the Distribution List in section 1.3. An updated WMP will be submitted after the contract is awarded. **Dept of Lands -Sahtu** (ID 1) requested the final WMP be provided to them as well as the Board.

3.3.2 Spill Contingency Plan

A Spill Contingency Plan was submitted for this Project to serve as a guide to INF and its Contractor in the event of an accidental release of fuel or other waste during the Project. Potential hazardous materials that will be used include:

- Fuels – gasoline and diesel
- Lubricating oils and grease
- Hydraulic and motor oil.

Spills could result from leaks, valve or line failures in equipment, accidents, fuel transfer, vandalism, improper training, or improper storage. The likelihood of a major spill is low since there will be limited storage of contaminants at the work site. The SCP includes a response table identifying roles and responsibilities of each person/entity in the event of a spill as well as a list of emergency

contacts. Spill prevention measures are outlined - many of these are standard conditions in the permit. Spill response action plans are outlined for various scenarios. Spill reporting protocols and forms are included, as well as MSDS sheets.

Board staff reviewed the Spill Contingency Plan (Version 1.0) with consideration of the basic requirements of Aboriginal Affairs and Northern Development Canada's *Guidelines for Spill Contingency Planning* (April 2007) and have the opinion the Plan conforms with the intent of the Guidelines. **Dept of Lands -Sahtu** (5-6) requested their department be added to the Distribution List (section 1.3) and to add contacts for the two Inspectors to the Emergency Contact Information (section 3.1, Table 3-3).

An updated SCP will be submitted after the contract is awarded.

3.4 Potential for Environmental Impacts and Mitigation Measures

In evaluating the potential impacts of this Project, the following factors provide the correct context:

- 1) The Project is winter-only and temporary. It will occur over 2-3 days in March 2020.
- 2) The Project activity will occur within the existing winter road alignment so the disturbance impact at drilling locations will be temporary in nature.

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 quality changes* – if groundwater is encountered the augers will be decontaminated.

Surface Water – *water quality changes* – all drilling will occur >30 m from the OHWM of any waterbody; all spills will be cleaned up per the SCP; fuel transfer > 100 m from any waterbody.

use of water – will be low and none will be drawn from nearby waterbodies.

Noise - *noise in or near water* – maintain equipment in proper operating condition, including mufflers.

Land – *permafrost alteration; erosion* – there is potential for melting of permafrost which could result in surface water ponding and erosion – Project will take place in winter under frozen conditions; boreholes will be backfilled with frozen material and tamped; a sand mound will be placed over the holes so if there is settling, a divot will be less likely to develop; snow will be placed over the holes for insulation.

Air/Climate/Atmosphere – *greenhouse gases; climate change* – impacts will be localized and temporary - maintain equipment in proper operating condition; minimize idling; no waste incineration or burning of cleared vegetation.

Biological Environment

Vegetation – *species introductions* - can come from clearing new areas and be introduced on dirty equipment – decontaminate vehicles and equipment prior to use.

Wildlife and Fish – effects on rare, threatened or endangered species – ENR (ID1) commented that although the project area overlaps with the ranges of the following NWT-listed and/or pre-listed species: Grizzly Bear - Listed as Threatened; Boreal Caribou - Listed as Threatened; Barren-ground Caribou - Listed as Threatened, ENR is of the opinion that the nature, areal extent, scale and/or timing of the proposed project are such that the likelihood of potential impacts to these species can be avoided or minimized if ENR’s wildlife recommendations are implemented as necessary, including the application of any wildlife mitigation and monitoring measures outlined in the Proponent’s Land Use Permit application and supporting documents.

Fish population changes – potential impacts are low and not anticipated by DFO (ID1) as all boreholes will be drilled >30 m from the water in winter; work area will be kept clean; all refueling > 100 m from waterbody; all spills cleaned up per SCP.

Breeding disturbances – potential impact to raptors nesting in the vicinity; if required a raptor nest survey will be completed and any nests will be protected by buffers of 500 m to 1 km.

Population reduction – no impacts anticipated but standard wildlife mitigation measures recommended by GNWT-ENR will be employed such as: minimize project footprint; use wildlife monitors and employ buffers (500 m for caribou; 800 m for bear, wolverine, wolf dens; raptor nests 1 km); report wildlife observations to ENR; keep traffic volume and speed low.

Behavioural change - no impacts anticipated but standard wildlife mitigation measures recommended by GNWT-ENR will be employed as above.

Toxins/heavy metals – safety measures will be applied to minimize risk of spills; spill contingency plan will be implemented for any spills.

Wildlife Incidents – to ensure no accidental injury keep vehicle speeds low; report any mortality to ENR; maintenance measures to minimize wildlife attractants; wildlife have the right-of-way; no hunting or feeding of wildlife; comply with *NWT Wildlife Act*.

Social and Economic

Quality of Life Changes – it is the GNWT mandate to support the Mackenzie Valley Highway which has been a long-deserved connection for Sahtu residents to reduce cost of living.

Economic/employment opportunities – wildlife monitor, contractor, labourer

Cultural and Heritage

Changes to or loss of archaeological resources – not anticipated as work will occur within previously disturbed areas and areas of low archaeological potential; any discovery will follow conditions in the permit for notification.

Effects to Aboriginal lifestyle – none anticipated.

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

3.5 Preliminary Environmental Screening

Under the Preliminary Screening Requirements of section 125(2) 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, a Preliminary Environmental Screening (PES) was performed. The draft PES is attached (**Attachment 3**) 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.

3.6 Conformity with Sahtu Land Use Plan

The SLUP was adopted by the Sahtu Land Use Planning Board (SLUPB) in April 2013 and received approval and came into effect on August 8, 2013. 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 zoning designation provides for the continued use of the corridor for transportation (winter road)

As per Part 3, Section 61(1) of the MVRMA, the Board may not issue, amend, or renew a licence or permit or authorization except in accordance with the applicable land use plan under Part 2. Board staff have required the Proponent demonstrate how the project meets the appropriate SLUP conformity requirements.

Table 3 outlines how these requirements are being addressed as presented by GNWT-INF with review by Board staff. Under evaluation by the SLWB staff, it appears the project conforms to the SLUP and therefore Board staff do not recommend referral to the SLUPB for a conformity determination as set out in Section 47. The SLWB has met the requirements as per Section 46 of the MVRMA.

Table 3: 12 Mile Creek Bridge Geotechnical Assessment – SLUP Conformity Requirements

Conformity Requirement	Application Section(s)	Supporting Evidence	Board Staff Review
General Conformity Requirement			
CR#1 – Land Use Zoning	19	Proposed land use is not prohibited within the project area Deh Cho Zone 63: Special Management Zone <ul style="list-style-type: none"> • No prohibitions except bulk water removal which will not occur • Region identified as important regional and territorial transportation corridor (specific mention of winter road) • This project constitutes winter road improvement 	Confirmed
CR#2 – Community Engagement and Traditional Knowledge	19	Community Engagement will occur with approved plan for Great Bear River Bridge and pothole MVH projects. Traditional Knowledge Study was not completed. TRRC requested a TK Study.	Confirmed, details discussed in section 3.2 of the staff report
CR#3 – Community Benefits	NA	Includes but not limited to: <ul style="list-style-type: none"> • Infrastructure improvement • Improved access on the winter road • Short-term employment and economic activities, contract work 	Confirmed, proposed project may create some short-term employment and business

			opportunities
CR#4 – Archaeological Sites and Burial Sites	17 and 19	AOA conducted by Stantec • drilling can occur without impact provided it is within the existing disturbed road alignment.	Confirmed, there are standard permit conditions that require no vehicle activity within 150 meters of a known or suspected historical or archaeological site or 500 m from a burial ground; and condition to not knowingly remove, disturb, or displace any archaeological specimen or site; and upon discovery to notify PWNHC.
CR#5 – Watershed Management	NA	Proposed project has little to no reasonable potential to substantially alter quality, quantity, or rate of flow for waters that flow on, through or are adjacent to Sahtu lands	Confirmed.
CR#6 – Drinking Water	NA	Proposed project will not result in the contamination of surface or groundwater within a community catchment.	Confirmed.
CR#7 – Fish and Wildlife	17	• Proposed work not likely to have significant impact on fish or wildlife • Drilling will occur > 30 m from OHWM of all watercourses	Confirmed. Permit conditions included with buffers if wildlife are encountered. Recommend Wildlife Monitors be used.
CR#8 – Species Introductions	17	• Equipment and vehicles used for the Project will be cleaned to prevent the spread of non-native plant species.	Confirmed
CR#9 – Sensitive Species and Features	17	According to Map 4: Sensitive Species and Features (p. 44 Sahtu Land Use Plan) and Appendix C: • There are karst formations near Tulita and 12 Mile Creek but unlikely to be encountered.	Confirmed
CR#10 –	17	• Geotechnical assessment will help to	Confirmed –

Permafrost		determine presence of permafrost in the area	additional mitigation required for backfilling boreholes if permafrost is encountered
CR#11 – Project-Specific Monitoring	NA	<ul style="list-style-type: none"> Wildlife monitor may be hired for the Project if required. 	Confirmed
CR#12 – Financial Security	N/A	Territorial Government exempt from security post	Confirmed. Pursuant to Section 94 (Exemptions) of the MVRMA, GNWT-INF is exempt from posting security.
CR#13 – Closure and Remediation	18	<ul style="list-style-type: none"> specific activities are not required as work is within current winter road alignment boreholes will be backfilled upon completion 	Confirmed.
Special Management Conformity Requirements			
CR#14 – Protection of Special Values	17	<ul style="list-style-type: none"> No indication of impact of project on archaeological sites No lasting or irreversible impacts to water quality or wildlife, and impacts minor and will be minimized through mitigation measures outlined in application documents. 	Confirmed.

3.7 Draft Permit

A draft Land Use Permit with Terms and Conditions was prepared and posted for review with the Application. Reviewer comments requested some changes and additions to the draft conditions. These were added as requested and mostly with the agreement of GNWT-INF, except for new conditions 11 and 13 for Permafrost and Erosion Plans. The revised draft conditions are included with track changes and markups to indicate changes from the version posted on the review (**Attachment 4**). A summary of changes is included here:

New Conditions to address concerns raised by Dept of Lands – Sahtu about Permafrost and Erosion

- **Permafrost Protection Contingency Plan** – condition 11
- **Sediment and Erosion Control Contingency Plan** – condition 13

Conditions Removed:

- **Winter Roads** – all work will be completed on the existing winter road alignment and this Project will not be required to maintain the road.

Best Practices for Wildlife recommended by ENR:

- **Garbage Container** – condition 25 – added the words “animal proof” in front of containers

Conditions modified based on recommendations from the Inspector or Permittee:

- **Off-Road Vehicle Travel** – condition 16 - added maintaining minimum 10 cm of snow-covered surfaces, unless otherwise authorized by the Inspector
- **Watercourse Buffer** – condition 18 - changed the standard 100 m to 30 m from OHWM as boreholes are required closer to the watercourse than 100 m.
- **Excavate Near Watercourse** – condition 19 - changed the standard 100 m to 30 m from OHWM as boreholes are required closer to the watercourse than 100 m.
- **Check for Leaks** – condition 32 – added to maintain a written log of inspections and spills.

Conditions added based on comments from TRRC:

- **Bear Dens** – condition 23 – added based on concerns raised by TRRC.

Conditions added based on Board staff review of similar applications and potential for impact:

- **Sewage Disposal** – condition 27 – added this condition to ensure appropriate approval is granted from Town of Norman Wells for receiving waste.
- **Fuel Near Water** – condition 33 – added “refueling” in addition to storage as an activity to be done > 100 m from any watercourse.
- **Report Fuel Location and Quantity** – condition 36 – added “and quantity” to ensure the amount as well as location of any fuel cache is provided.

3.8 Security Deposit

Pursuant to Section 94 (Exemptions) of the *Mackenzie Valley Resource Management Act* (MVRMA), GNWT-INF is exempt from posting security.

4. Other Comments from Public Review

The following section presents additional discussion of the two issues of disagreement between GNWT-INF and GNWT- Lands- Sahtu Region.

4.1 Need for a Permafrost Protection Plan

GNWT-Lands, Sahtu Region (ID9) strongly suggested a permafrost protection plan (PPP) be prepared for the Project to mitigate any potential permafrost degradation. The recommended plan will be a contingency if permafrost is encountered during drilling.

This issue was considered by the Board in the application for the Prohibition Creek Access Road Geotechnical Assessment (S20S-001). Board staff had supported the recommendation of the GNWT-Lands, Sahtu that a contingency plan should be prepared in advance of work to outline solutions in the event that permafrost is encountered and proposed a new permit condition:

Permafrost Protection Contingency Plan - The Permittee shall prepare and submit to the Board and Inspector for approval, a contingency plan that outlines additional mitigation measures to be taken to remediate the Boreholes in the event that the drilling encounters permafrost.

Board staff recommend that the Board adopt the decision made on this issue for S20S-001.

4.2 Need for a Sediment and Erosion Control Plan (SECP)

GNWT-Lands, Sahtu Region (ID10) expressed concerns about the potential for erosion issues to occur. The Plan will be a contingency if sediment and erosion issues are encountered and should provide adequate solutions on how to deal with sediment and erosion issues in order to mitigate any degradation.

This issue was considered by the Board in the application for the Prohibition Creek Access Road Geotechnical Assessment (S20S-001). Board staff had supported the recommendation of the GNWT-Lands, Sahtu that a contingency plan should be prepared in advance of work to outline solutions in the event that sediment and erosion issues are encountered and proposed a new permit condition:

Sediment and Erosion Control Contingency Plan - The Permittee shall prepare and submit to the Board and Inspector for approval, a contingency plan that outlines mitigation measures to be taken to remediate any degradation resulting from erosion after the boreholes have been backfilled.

Board staff recommend that the Board adopt the decision made on this issue for S20S-001.

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.

The outstanding issues for the Board to consider are:

- 1) the potential need for the Proponent to prepare and submit the following:
 - Permafrost Protection Contingency Plan;
 - Sediment and Erosion Control Contingency Plan.
- 2) The need for TK study from Tulita community;
- 3) The need for a Bear Den Survey;
- 4) The need to have Environmental Monitors from Tulita present during Project activities.

6. Recommendation

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

- 1) Approve the draft **Preliminary Screening and Reasons for Decision (Attachment 3)**;
- 2) Approve the **Notification of Preliminary Screening 10-day Pause Period (Attachment 5)**;
- 3) Approve the **draft LUP Cover Page**, with a term of two years (**Attachment 6**) and the **draft Terms and Conditions (Attachment 4)**;
- 4) Approve the **Conformity with the Sahtu Land Use Plan**;
- 5) Conditionally approve the **Spill Contingency Plan** and **Waste Management Plan** with the direction that final versions be submitted to the Board and Inspector for approval prior to commencement of the Project;
- 6) Approve the draft **Reasons for Decision (Attachment 7)** and draft **Letter of Issuance (Attachment 8)** prepared for Board consideration.

The letter of issuance includes direction from the Board for updates to be made to some of the plans and protocols and submitted to the Board and the Inspector prior to commencement of the Project:

- 1) Submit an updated equipment list;
- 2) Submit an updated list of fuels, tanks, and storage volumes;
- 3) Submit final protocols for methods of fuel transfer;
- 4) Update the SCP, including adding the Department of Lands – Sahtu Region to the Distribution List (section 3.1) and adding the two Sahtu Region Land Use Inspectors telephone and email contact information to Table 3-3;
- 5) Update the WMP including adding the Department of Lands – Sahtu Region to the Distribution List (section 3.1);

Board staff will confirm the changes requested on behalf of the Board.

7. Reference Material Attached

- 7.1. Land Use Permit Application ([hyperlink](#))
- 7.2 Review Comment Summary Table and attached letter from GNWT-ENR
- 7.3 Draft Preliminary Environmental Screening Report
- 7.4 Draft Land Use Permit Term and Conditions
- 7.5 Draft Notification of Preliminary Screening 10-day Pause Period
- 7.6 Draft Permit Cover Page
- 7.7 Draft Reasons for Decision
- 7.8 Draft Decision/Issuance Letter

Respectfully submitted,



Bonnie Bergsma
Regulatory Specialist

Executive Director Comments:



Paul Dixon
Executive Director