



January 15th, 2021

Executive Director Paul Dixon  
Sahtu Land and Water Board  
PO BOX 1  
Fort Good Hope, NT X1A 2P6  
Email: [paul.dixon@slwb.com](mailto:paul.dixon@slwb.com)

Dear Mr. Dixon

**Edie Lake Geotechnical Investigations Application Package**

The Government of the Northwest Territories Department of Infrastructure is submitting the attached Regulatory Application Package for geotechnical investigations related to the proposed expansion of the Edie Lake Quarry.

The Regulatory Application Package includes the following documents:

- Land Use Permit Application
- Project Description Report
  - Draft Waste Management Plan
  - Community Waste Disposal Approval
  - Draft Spill Contingency Plan
  - Permafrost and Erosion Management Plan
  - Edie Lake Archaeological Information
  - Engagement Plan and Engagement Record
  - Edie Lake Traditional Knowledge Information
  - Letters of Project Support

Technical inquiries regarding the Project can be forwarded to Ms. Patricia Coyne at [Patricia.Coyne@gov.nt.ca](mailto:Patricia.Coyne@gov.nt.ca) or via phone at 867-767-9081 ext. 31033.

Sincerely,

Ms. Patricia Coyne  
Senior Environmental Analyst  
Strategic Infrastructure  
Department of Infrastructure

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## Attachment – Edie Lake Quarry Geotechnical Project Description Report

c. Mr. Kelly Bourassa  
Senior Environmental Analyst  
Strategic Infrastructure

Mr. Seth Bohnet  
Director  
Strategic Infrastructure  
Department of Infrastructure

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# Land and Water Boards of the Mackenzie Valley



## LAND USE PERMIT APPLICATION FORM

Subsection 19(2) and Schedule 2 of the [Mackenzie Valley Land Use Regulations](#)

Use an "X" to indicate which Board the Application is being made to:	Mackenzie Valley Land and Water Board:		Sattu Land and Water Board:	<b>X</b>
	Wek'èezhii Land and Water Board:		Gwich'in Land and Water Board:	

To complete this Form, please refer to the MVLWB [Guide to the Land Use Permitting Process](#) (Guide) and fill in the grey fields; attach additional pages, as necessary. Indicate N/A in the grey fields for Items or parts of Items that are not applicable. Review the following MVLWB guidance for formatting your Application Package:

- [Document Submission Standards](#)
- [Standard Outline for Management Plans](#)

If applicable, provide the existing or current Land Use Permit file number:		
Use an "X" to indicate if this Application is accompanied by an Application for a Water Licence:	Water Licence – in a non-federal area:	
	Water Licence – in a federal area:	

### 1. NAME AND CONTACT INFORMATION – APPLICANT

Applicant's Name:	Seth Bohnet		
Position:	Director, Strategic Infrastructure, GNWT INF		
Mailing Address:	P.O. Box 1320		
Community:	Yellowknife	Telephone:	867.767.9081 x31033
Prov/Terr:	NT	Email:	<a href="mailto:Seth.Bohnet@gov.nt.ca">Seth.Bohnet@gov.nt.ca</a>
Postal Code:	X1A 2L9	Other:	

### 2. NAME AND CONTACT INFORMATION – APPLICANT'S HEAD OFFICE

Include a Certificate of Corporate Registration from the Government of the Northwest Territories in your Application Package.

Use an "X" to indicate if this information is the same as Item 1 above:	<b>X</b>
Name:	

Position:			
Mailing Address:			
Community:			
Prov/Terr:		Telephone:	
Postal Code:		Email:	
Field Supervisor:		Other:	

### 3. NAME AND CONTACT INFORMATION – CONTRACTORS AND SUB-CONTRACTORS

Include relevant names, responsibilities, and contact information. An additional table should be added for each contractor and sub-contractor.

Name:	Warren McLeod		
Position:	Project Manager		
Company Name:	K'alo Stantec Consulting		
Mailing Address:	PO Box 1777		
Community:	Yellowknife	Telephone:	867.920.2882 x238
Prov/Terr:	NT	Email:	<a href="mailto:Warren.McLeod@stantec.com">Warren.McLeod@stantec.com</a>
Postal Code:	X1A 2P4	Other:	

### 4. LOCATION OF ACTIVITIES

Use the grey fields below to provide or reference the following information:

Maps and Geographic Information System (GIS) Data: Include a map in your Application Package identifying local geographic features, watercourses and water sources, project structures, and location(s) of any proposed waste deposits. Provide geographic coordinates (latitude and longitude) of project features, and the maximum and minimum project boundary in degrees, minutes, seconds, or decimal degrees. Include GIS data in your Application Package, if applicable. Refer to the MVLWB [Guideline for Geographic Information Systems \(GIS\) Submission Standard](#) for providing geographic information.

Minimum latitude:	65 16' 43" N	Maximum latitude:	65 17' 8" N
Minimum longitude:	126 32' 29" W	Maximum longitude:	126 31' 25" W

NTS Map Sheet No.: Provide the map sheet number:

Land Types: Use an "X" to indicate the type(s) of the land on which the activities are proposed:

Free Hold/ Private:	<input type="checkbox"/>	Commissioner's/ Territorial Lands:	<input checked="" type="checkbox"/>	Federal Land:	<input type="checkbox"/>	Municipal Land:	<input type="checkbox"/>
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### 5. ELIGIBILITY

Refer to section 18 of the [Mackenzie Valley Land Use Regulations](#). Use an "X" to indicate which one applies:

18(a)(i):	<input type="checkbox"/>	18(a)(ii):	<input type="checkbox"/>	18(a)(iii):	<input type="checkbox"/>	18(b):	<input checked="" type="checkbox"/>
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**7. PERMIT TYPE AND CRITERIA**

Refer to sections 4 and 5 of the [Mackenzie Valley Land Use Regulations](#). Use an “X” to indicate which permitting criteria apply:

Type A				Type B				Type C	
4(a)(i):		4(b)(i):	<b>X</b>	5(a)(i):		5(b)(i):		(SLWB and WLWB only):	
4(a)(ii):	<b>X</b>	4(b)(ii):		5(a)(ii):		5(b)(ii):			
4(a)(iii):		4(b)(iii):		5(a)(iii):					
4(a)(iv):	<b>X</b>	4(b)(iv):		5(a)(iv):					
4(a)(v):	<b>X</b>			5(a)(v):					
				5(a)(vi):					

**8. PROJECT DESCRIPTION**

Include your project description in your Application Package, or for small-scale projects, describe your proposed activities in the grey field provided below. Include the name and type (e.g., lake, river) of water source(s), and the purpose and quantity of water to be used (rates, volumes (m<sup>3</sup>/day)). Indicate the total

For drilling locations outside the existing quarry, access trails have previously been cleared to reach these sites these clearing activities were completed under the existing water will be sourced from the on or an wells municipal water source and transported to site via water truck operated by contracting to water withdrawal or the project will be less than per day used on this in operation, a water licence will not be required for this project

**9. CAMP**

Describe the proposed camp size and layout. Indicate the number of person-days; explain, with rationale,

Due to the proximity of the Project work sites to Norman Wells, a camp will not be required to facilitate the Project

any variations in the number of people that may be on site over the life of the project.

**10. ROADS AND ACCESSES**

Provide detailed information about the construction, location, and decommissioning of any roads and accesses.

Use an “X” to indicate if this is to be a pioneered road or access:	Yes	<b>X</b>	Use an “X” to indicate if the route has been laid out or ground-truthed:	Yes	<b>X</b>
	No			No	

Access trails have already been cleared to access borehole locations outside of the existing quarry. Refer to Section 5.1 of the attached PDR for more information.

## 11. PROPOSED WASTE MANAGEMENT METHODS

Use the grey fields below to provide or reference the following information:

**Waste Management Plan:** Include your Waste Management Plan in your Application Package, if applicable, or for small-scale projects, describe your proposed waste management activities in the grey fields provided below. A template for the Plan can be found in the MVLWB [Guidelines for Developing a Waste Management Plan](#).

Waste Type	Management Method(s)
Garbage:	Refer to Appendix A - Waste Management Plan
Sewage (Sanitary and greywater):	Refer to Appendix A - Waste Management Plan
Brush and trees:	Refer to Appendix A - Waste Management Plan
Overburden (Organic soils, waste material, etc.):	Refer to Appendix A - Waste Management Plan

**Off-site Disposal:** If waste is proposed to be disposed of off-site within the NWT, written confirmation (e.g., an email, letter, etc.) from the facility/facilities indicating they will accept the waste is required. Include it/these in your Application Package. Please note this information will be required by the Board prior to commencement of activities.

## 12. EQUIPMENT

Identify the types of equipment proposed to be used.

Equipment	Size	Weight (kg)	Number	Purpose
Geotechnical Drill Rig	Various	Up to 40,000	1	For drilling boreholes at selected sites
Excavator	Cat 270	Not Applicable	1	Preparing quarry site for drill access (ramps, clearing etc.)
Dozer	D6	Not Applicable	1	Preparing quarry site for drill access (ramps, clearing etc.)
Service Pickup	½ tonne to 5 tonne capacity	5,000	2 to 4	Provide personnel transport, fuel transport in tidy tanks
Water Truck	Various	Not Applicable	1 to 2	For supplying water to the drilling unit.

## 13. FUEL

Identify all fuel types proposed to be used.

Type of Fuel	Number of containers	Capacity of containers (e.g., litres, pounds)	Type of container (barrel, tank, tidy-tank)	Proposed storage or staging location(s)
Diesel:				
Gasoline:				
Aviation Fuel:				
Propane:				
Other: (describe)				

#### 14. METHODS OF FUEL TRANSFER

Describe the proposed methods to transfer fuel.

Refer to Section 10.2 of the attached PDR.

#### 15. SPILL CONTINGENCY PLAN

Include your Spill Contingency Plan in your Application Package, if applicable, or for small-scale projects, provide relevant details in the grey field provided below. An example of this Plan can be found in the INAC [Guidelines for Spill Contingency Planning](#).

A Spill Contingency Plan is included in Appendix C of the attached PDR

#### 16. PROPOSED PROJECT SCHEDULE AND TERM

Indicate the proposed project start and completion dates and the time of year the project activities are planned to occur. Describe any anticipated temporary closure(s) or seasonal shutdowns. Indicate the term requested.

Start Date:	Winter/Spring 2021	Completion Date:	Winter/Spring 2021
Refer to Section 12 of the attached PDR for the anticipated Project schedule.			
Term of Permit Requested:	5 years		

#### 17. POTENTIAL ENVIRONMENTAL IMPACTS OF THE PROJECT AND PROPOSED MITIGATIONS

Using the Impact-Mitigation Table below, or the more detailed Table in Appendix D of the [Guide](#), identify all potential impacts and possible mitigations that are relevant to the proposed project, and indicate whether any of the mitigation measures have been developed as a result of input from affected parties. Possible potential impacts are listed below; however, these lists are not exhaustive and may not apply to all projects. All information provided should reflect the size, scale, and nature of the proposed project. Cumulative impacts and climate change must be considered. Attach additional pages if needed.

Potential Impacts <i>Use an "X" to indicate which apply</i>	X	Potential Project Impacts and Proposed Mitigations <i>Describe the potential impact(s) and the proposed measure(s) to reduce each of these impacts.</i>
<b>ABIOTIC COMPONENTS</b>		
<b>Land</b>		
Soil contamination	X	Refer to PDR Section 13.1 for relevant impacts and mitigations.
Soil compaction		
Destabilization/erosion	X	Refer to PDR Section 13.1 for relevant impacts and mitigations.
Change in soil structure	X	Refer to PDR Section 13.1 for relevant impacts and mitigations.



<b>Potential Impacts</b> <i>Use an "X" to indicate which apply</i>	<b>X</b>	<b>Potential Project Impacts and Proposed Mitigations</b> <i>Describe the potential impact(s) and the proposed measure(s) to reduce each of these impacts.</i>
Inability to support vegetation		
Other		
<b>Water</b>		
<b>Groundwater</b>		
Water table alteration		Impacts on groundwater are not anticipated for this Project. Refer to PDR Section 13.2.1 for more information.
Infiltration changes		
Changes in water quality		
Temperature changes		
Other		
<b>Permafrost</b>		
Loss or change in extent	X	Refer to PDR Section 13.2.2 for relevant impacts and mitigations.
Changes in seasonal fluctuations	X	Refer to PDR Section 13.2.2 for relevant impacts and mitigations.
Change in persistence	X	Refer to PDR Section 13.2.2 for relevant impacts and mitigations.
Other		
<b>Surface Water</b>		
Water flow or level changes (permanent, temporary, seasonal)		Impacts on surface water are not anticipated for this Project. Refer to PDR Section 13.2.3 for more information.
Drainage pattern changes		
Temperature changes		
Changes in water quality		
Wetland impairment		
Changes to aquatic habitat (see Biotic section below)		
Other		
<b>Air</b>		
Changes in air quality	X	Refer to PDR Section 13.3.1 for relevant impacts and mitigations.
Harm to living things		
Increased greenhouse gases	X	Refer to PDR Section 13.3.2 for relevant impacts and mitigations.
Other		
<b>BIOTIC COMPONENTS</b>		
<b>Vegetation</b>		
Direct loss of vegetation		
Loss of Species at Risk or may-be-at-risk plants		
Change in species composition	X	Refer to PDR Section 13.4 for relevant impacts and mitigations.
Introduction of non-native (invasive) species	X	Refer to PDR Section 13.4 for relevant impacts and mitigations.
Effects on plant health (dust, metals, toxins)	X	Refer to PDR Section 13.4 for relevant impacts and mitigations.
Increased risk of fire		
Compaction of vegetation		
Other		

<b>Potential Impacts</b> <i>Use an "X" to indicate which apply</i>	<b>X</b>	<b>Potential Project Impacts and Proposed Mitigations</b> <i>Describe the potential impact(s) and the proposed measure(s) to reduce each of these impacts.</i>
<b>Terrestrial Wildlife Habitat</b>		
Direct loss or removal of habitat, dens, or nests		
Loss or removal of keystone species and/or Species at Risk habitat		
Fragmentation of wildlife corridor		
Direct injury or mortality	X	Refer to PDR Section 13.5 for relevant impacts and mitigations.
Disturbances to key lifecycle stages: breeding, feeding, nesting, staging	X	Refer to PDR Section 13.5 for relevant impacts and mitigations.
Effects on population abundance		
Change in species diversity		
Effects on wildlife health (toxins, metals, etc.)	X	Refer to PDR Section 13.5 for relevant impacts and mitigations.
Changes to migratory movement patterns	X	Refer to PDR Section 13.5 for relevant impacts and mitigations.
Changes to predator-prey relationships		
Human-wildlife conflicts	X	Refer to PDR Section 13.5 for relevant impacts and mitigations.
Other		
<b>Aquatic Habitat</b>		
Breeding disturbances		Impacts on surface water are not anticipated for this Project. Refer to PDR Section 13.6 for more information.
Change in species diversity		
Effects on health (toxins, metals, sediment, etc.)		
Changes to migratory movement patterns		
Changes to predator-prey relationships		
Effects on population abundance		
Change in species diversity		
Other		
<b>CULTURAL COMPONENTS</b>		
<b>Wildlife Harvesting</b>		
Loss or reduction in game species populations		Effects of the Project on wildlife harvesting are not anticipated. Refer to PDR Section 13.7 for more information.
Effects on traditional land use, subsistence, and harvesting rights		
Other		
<b>Cultural Integrity and Heritage Resources</b>		
Change to or loss of cultural integrity		Effects of the Project on archaeological and heritage resources are not anticipated. Refer to PDR Section 13.8 for more information.
Change to or loss of traditional lifestyle		
Change to or loss of heritage resource		
Other		
<b>Social and Economic Well-being</b>		
Increased human health hazard and risk		
Economic opportunities or losses (employment, training)	X	The Project is anticipated to have minor positive impacts on the local economy. Refer to PDR Section 13.9 for more information.
Change in ecological, cultural, social, or economic values identified for protection in approved Land Use		

<b>Potential Impacts</b> <i>Use an "X" to indicate which apply</i>	<b>X</b>	<b>Potential Project Impacts and Proposed Mitigations</b> <i>Describe the potential impact(s) and the proposed measure(s) to reduce each of these impacts.</i>
Plans		
Impairment of the recreational or traditional uses of the land or water		
Impairment of the aesthetic quality of the land or water		
Changes to the use of the area by other non-Indigenous people (e.g. trappers, outfitters, residents, hunters, forest harvesters, other authorized projects)		
Other		

## 18. CLOSURE AND RECLAMATION

Use the grey field below to provide or reference the following information:

**Closure and Reclamation Plan:** Describe your plans for closure and reclamation, including any temporary closure(s) and seasonal shutdowns. Include your Closure and Reclamation Plan in your Application Package, if applicable, or for small-scale projects, describe the proposed activities in the grey field provided below. Please also refer to the MVLWB/AANDC [Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories](#).

**Closure Cost Estimate:** Prepare a Closure Cost Estimate and include it in your Application Package. Applicants are encouraged to contact the Board, prior to applying, to determine which closure-cost-estimate template is most suited to the activities being applied for. Guidance is provided in section 2.2 of the MVLWB/INAC/GNWT [Guidelines for Closure and Reclamation Cost Estimates for Mines](#). If your Application is submitted concurrently with a Water Licence Application, the estimate should include a breakdown of water- and land-related activities and liabilities.

A closure and reclamation plan for the Project is outlined in Section 14 of the PDR.

## 19. ADDITIONAL SUPPORTING INFORMATION

Use the grey field below to provide or reference the following information:

**Engagement:** Conduct engagement, prepare an Engagement Record and Engagement Plan in accordance with the MVLWB [Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits](#), and include them in your Application Package. Templates are provided in the Guidelines. Please also refer to [Information for Proponents on MVLWB's Engagement Requirements](#).

**Land Use Plans:** Contact the applicable Land Use Planning Board or the Tłı̨chǫ Government to discuss conformity with the relevant land use plan(s). Include a Land Use Plan Conformity Table in your Application Package, demonstrating how the project meets the requirements of the Land Use Plan, if applicable.

**Traditional (Environmental) Knowledge (TEK/TK):** Provision of TEK/TK is mandatory for applications to the SLWB. Other applicants are strongly encouraged to include TEK/TK.

Studies Undertaken to Date: List any relevant studies that support the proposed activities and include them in your Application Package.

Engagement: Refer to Section 15.1 of the attached PDR  
Land Use Plans: Refer to Section 15.2 of the attached PDR  
Traditional (Environmental) Knowledge (TEK/TK): Traditional knowledge in the Project area is described in section 15.3 of the attached PDR  
Studies Undertaken to Date: Relevant studies undertaken to date are described in Section 15.4 of the attached PDR

**20. FEES**


Refer to section 20 of the [Mackenzie Valley Land Use Regulations](#) for assistance in determining relevant fees.

Type of Fee	Amount (\$)
Application fee:	\$0
Land-use fees (for federal areas only):	\$0
Total Fees:	\$0
	\$0

**The GNWT is exempt from paying LUP-associated fees as per Section 20 of the MVLUR**

**21. SIGNATURE**

Patricia Coyne	Senior Environmental Analyst
Applicant's Name (print) or Company Name	Position (print)

	January 15th, 2021
Signature	Date

Please submit completed applications to the Regulatory Manager or Executive Director identified on the "Contact Us" pages of the respective Land and Water Board ([www.mvlwb.com](http://www.mvlwb.com), [www.wlwb.ca](http://www.wlwb.ca), [www.slwb.com](http://www.slwb.com), [www.glwb.com](http://www.glwb.com)).