



December 12, 2017

Gwich'in Land and Water Board
Alex Moses-Greenland Building at 105 Veterans Way
P.O. Box 2018, Inuvik, NT X0E 0T0

**Re: Application for Land Use Permit
Monitoring Well Installation – Various Communities**

Dear Ms. Macdonald,

Attached is an Application for a Type A Land Use Permit, which includes an Engagement Record and Plan, Waste Management Plan and Spill Contingency Plan.

The Government of the Northwest Territories (GNWT), Department of Municipal and Community Affairs (MACA) has initiated a project to install monitoring wells in the vicinity of active, decommissioned and/or closed landfill and sewage lagoon facilities in nine communities in the Northwest Territories. Communities within the jurisdiction of the Gwich'in Land and Water Board (MVLWB) are Tsiigehtchic (13 wells) and Fort McPherson (8 wells). The number of wells may be modified prior to installation depending on site conditions.

The purpose of the work is to develop a monitoring program to monitor groundwater for environmental contaminants. The work includes design of a long-term monitoring program after the wells have been installed, such that the GNWT can ensure the environment remains protected into the future. Part of the work is to provide lockable vehicle gates at the facilities. The project will include borehole drilling, design and installation of monitoring wells, gate installation, monitoring well development and surveying, and groundwater sampling. Following well installation, a post-installation report and sampling results report will be provided to the GNWT and a long-term sampling plan and sampling procedures manual will be developed.

If you have any questions or concerns please contact Ms. Jaime Goddard at (867) 767-9164 ex. 21079 or e-mail jaime_Goddard@gov.nt.ca.

Sincerely,

Jaime D. Goddard, P. Eng.

Senior Technical Officer, Water & Sanitation
Community Operations
Department of Municipal and Community Affairs
Government of the Northwest Territories

Attachments: Application for Land Use Permit
 Proposed Project Location Maps
 Waste Management Plan
 Spill Contingency Plan
 Engagement Plan
 Engagement Log
 Engagement Record
 Teleconference Meeting Minutes



GWICH'IN LAND AND WATER BOARD

P.O. Box 2018, Inuvik, NT X0E 0T0

☎ 867-777-4954

📠 867-777-2304

🌐 glwb.com

Land Use Permit Application Form

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

1	<p>Applicant's Name: Government of the Northwest Territories Municipal and Community Affairs</p> <p>Applicant's Mailing Address: P.O. Box 1320 Yellowknife, NT X1A 2L9</p>	<p>Fax no.: (867) 873 0584 (Jaime Goddard - GNWT MACA)</p> <p>Telephone no.: 867 767 9164 ext. 21079 Jaime Goddard, Senior Technical Officer, Water & Sanitation, Community Operations, MACA, GNWT</p> <p>Email address: jaime_goddard@gov.nt.ca</p>
2	<p>Field Supervisor: Crystal Sabel (Dillon Consulting Limited) (867) 920 4555</p> <p>Head Office Address: Same as above</p>	<p>Fax no.: (867) 873 3328 (Crystal Sabel - Dillon Consulting)</p> <p>Telephone no.: Office: (867) 920 4555 x 4114 (Crystal Sabel - Dillon Consulting)</p> <p>Email address: csabel@dillon.ca</p>
3	<p>Other personnel (subcontractor, contractors, company staff etc.): Municipal and Community Affairs, GNWT – Olivia Lee, Manager of Asset Management, MACA, GNWT Dillon Consulting Limited – Andrew Russell, Field Technician (902) 694-7227 and Beth Cowan, Field Technician (709) 749-9350 Clean Harbors/Gully Enterprises – Alvin Lawless, Operations Manager (780) 220-0824 Total number of persons on site: Minimum one Dillon personnel, and minimum three Clean Harbors/Gully Enterprises personnel. Anticipated to have two Dillon personnel on-site for the majority of the field work.</p>	
4	<p>Eligibility (Refer to section 18 of the Mackenzie Valley Land Use Regulations):</p> <p><input type="checkbox"/> (a)(i) <input type="checkbox"/> (a)(ii) <input type="checkbox"/> (a)(iii) <input checked="" type="checkbox"/> (b)</p>	
5	<p>Other rights, licences or permits related to this permit application (mineral rights, timber permits, water licences, etc.):</p> <p><i>To complete this section of the Application Form, please see page 16 of the Board's Guide to the Land Use Permitting Process for more information.</i></p> <p>Land reserves have been obtained by MACA from the Department of Lands around the sewage and solid waste sites for all communities. No other licences or permits will be required for the work.</p>	
6	<p>a) Summary of operation (describe purpose, nature and location of all activities). Refer to paragraph 19(3)(b) of the Mackenzie Valley Land Use Regulations:</p> <p><i>To complete this section of the Application Form, please see page 15 of the Board's Guide to the Land Use Permitting Process for more information.</i></p> <p>Please see details on appended sheet.</p> <p>b) Indicate if a camp is to be set up. If yes, indicate size of camp or describe camp. (Provide details on a separate page, if necessary):</p> <p>No camp will be set up.</p>	

7 Summary of potential environmental and resource impacts and mitigation measures (describe the effects of the proposed land-use operation on land, water, flora and fauna and related socio-economic impacts). (Use separate page if necessary):

To complete this section of the Application Form, proponents are encouraged to use [Appendix B](#) of the Board's [Guide to the Land Use Permitting Process](#).

Please see details on appended sheet.

8 Proposed restoration plans (Use a separate page if necessary):

To complete this section of the Application Form, please see page 16 of the Board's [Guide to the Land Use Permitting Process](#) for more information.

No restoration plan will be required as the site will be left in its original condition. Some areas of clearing or brush cutting may be required in order to install monitoring wells as select locations. These areas will be limited to the specific well installation areas when/if required. Dillon will survey each well and install reference markers so that they will be visible and clearly marked for future location of each well.

Roads:

Is this to be a pioneered (new) road? No

(Provide details on a separate page.)

Has the route been laid out or ground truthed? NA

There are pre-existing access routes to these sites. Some minor tree clearing may be required depending on the well locations selected.

9 Proposed disposal methods:

To complete this section of the Application Form, a waste management plan for the proposed activities is to be developed in accordance with the Board's [Guidelines for Developing a Waste Management Plan](#) and submitted as an attachment to the Application Form. A template for this Plan is provided in the Guidelines.

a) Garbage: Will go into a waste receptacle and be disposed of at local landfill sites.

b) Sewage (Sanitary and grey water): Work on site is short term and workers will use existing washroom facilities at the community office.

c) Brush & trees: Sites will be selected to minimize brush needing to be cleared. Any minor brush will be disposed of at local landfill sites.

d) Overburden (Organic soils, waste material, etc.): Will be collected in barrels and shipped to the appropriate waste facility.

10 Equipment (includes drills, pumps, etc.) (Use separate page if necessary):

Number	Type and Size	Proposed use
Marl- M4CT	140 HP	Drilling Ops
Canycorn Rubber Track Undercarriage	15'9" long, 7'9" wide 15-116000 lbs including drill	Transport of drill
F550 Flatbed		Support

11 Fuels:	Number of containers:	Capacity of containers:	Location:
Diesel	1	1000 L	Mounted on support truck
Gasoline	2	25 L each	On support truck
Aviation Fuel	0	NA	NA
Propane	0	NA	NA
Other	0	NA	NA

12 Containment fuel spill contingency plans (attach separate contingency plan if necessary):

A spill contingency plan for the proposed activities is to be developed in accordance with [INAC's Guidelines for Spill Contingency Planning, April 2007](#). This Plan is to be submitted as an attachment to the Application Form.

A drum-style spill kit is to be supplied at each work site. Please see attached Spill Contingency Plan & Maps.

13 Methods of fuel transfer (to other tanks, vehicles, etc.):

Fuel will be transferred using an electric transfer pump.

14 Period of operation (includes time to cover all phases of project work applied for, including restoration):

From (DD/MM/YY) 31/01/18

To (DD/MM/YY) 31/10/18

15 Period of permit (up to five years, with maximum of two years of extension):

Start Date (DD/MM/YY): 01/01/18

Completion Date (DD/MM/YY): 01/01/18

16 Location of activities by map coordinates (attach maps and sketches):

To complete this part of the Application Form, please see the [MVLWB Guideline for Geographic Information System \(GIS\) GIS Submission Standard](#).

Minimum latitude (degree, minute): Site plans are attached:

Maximum latitude (degree, minute): Tsiigehtchic Active Landfill – 67°26'44.15"N, 133°42'48.90"W

Tsiigehtchic Closed Landfill – 67°26'44.18"N, 133°44'17.56"W

Minimum longitude (degree, minute): Tsiigehtchic Active Lagoon – 67°26'39.89"N, 133°42'29.73"W

Maximum longitude (degree, minute): Fort McPherson Active Landfill – 67°27'7.95"N, 134°48'38.31"W

Fort McPherson Active Lagoon – 67°27'7.95"N, 134°48'50.13"W

Map Sheet no.:

17 Applicant (print name in full, in upper case): Jaime D. Goddard, P. Eng. (GNWT MACA)

Signature:

Date (DD/MM/YY): Dec 12, 2017

18 Application fees for Type A or Type B permit (for federal and non-federal lands):

a) Application fees for Type A or Type B permit (include the first two hectares) - \$150.00: \$

AND

b) Land-use fees for **federal public lands only**:

If more than two hectares of federal public lands are being used, enter the number of hectares in excess of the two hectares included in the Application fee, rounded up to the next whole hectare \$

_____hectares at \$50.00/hectare

Total fees: \$

Please make all cheques payable to the Receiver General for Canada.

19 Additional Information (Attach additional pages if necessary).

Additional information for Questions 6 and 7:

6 a) Summary of operation (describe purpose, nature and location of all activities). Refer to paragraph 19(3)(b) of the Mackenzie Valley Land Use Regulations:

To complete this section of the Application Form, please see page 15 of the Board's Guide to the Land Use Permitting Process for more information.

The Government of the Northwest Territories, Department of Municipal and Community Affairs is planning to install monitoring wells in the vicinity of active, decommissioned and/or closed landfill and sewage lagoon facilities in six communities in the Northwest Territories. Communities within the jurisdiction of the GLWB are Tsiigehtchic (13 wells) and Fort McPherson (8 wells). The number of wells may be modified slightly prior to installation depending on site conditions.

The work is being completed in order to monitor groundwater for environmental contaminants. The work includes design of a long-term monitoring program after the wells have been installed, such that the Government of the Northwest Territories can ensure the environment remains protected into the future. Where required, lockable vehicle gates will also be installed at the facilities to limit public access to the sites. The project will include borehole drilling, design and installation of monitoring wells, vehicle gate installation, monitoring well development and surveying, and groundwater sampling. Following well installation, a post-installation report and sampling results report will be provided to the Government of the Northwest Territories and a long-term sampling plan and sampling procedures manual will be developed specificc to each site.

7 Summary of potential environmental and resource impacts (Describe the effects of the proposed land-use operation on land, water, flora & fauna and related socio-economic impacts. Use separate page if necessary.):

The monitoring wells will be developed around existing landfill sites and sewage lagoons. The project will include borehole drilling, design and installation of monitoring wells, gate installation, monitoring well development and surveying, and groundwater sampling. Temporary noise-related impacts will occur during the drilling. At project completion, monitoring wells will remain on the land and gate installation will limit public access to the sites. The project will have a beneficial effect on land and water by allowing for long-term monitoring and is not expected to have any detrimental impact on land, water, flora or fauna. Sites will be accessed by access roads already in place for each site. Minor clearing or brush cutting may be required in order to access specific well installation locations.

There are no anticipated negative socio-economic impacts resulting from this project. On-site training for government staff and/or staff of the respective community governments will be provided to enable the Government of Northwest Territories to perform monitoring well sampling in the future.

Please also find the following appended documents:

- Appendix A - Proposed Project Location Maps
- Appendix B - Waste Management Plan
- Appendix C - Spill Contingency Plan
- Appendix D - Engagement Plan
- Appendix E - Engagement Log
- Appendix F - Engagement Record
- Appendix G - Teleconference Meeting Minutes