

April 5, 2013

Mr. Paul Dixon  
Executive Director  
Sahtu Land and Water Board  
Box 1  
Fort Good Hope, NT  
X0E 0H0

Dear Mr. Dixon,

**Re: Charter Community of Deline  
Water Licence – S12L3-006  
Final Closure and Reclamation Plan**

The Department of Environment and Natural Resources (ENR) has reviewed the above application based on its mandated responsibilities under the *Environmental Protection Act*, the *Forest Management Act*, the *Forest Protection Act* and the *Wildlife Act* and has the following comments and recommendations for consideration by the Board.

The Environment Division, ENR has reviewed the Deline Closure and Reclamation Plan (C&R Plan) and requests that the Sahtu Land and Water Board (SLWB) not accept the C&R Plan in its current state. The current landfill is situated on Commissioner's Land. There are significant deficiencies in the final C&R Plan, and if implemented this summer in its current state, the C&R Plan lacks appropriate mitigation measures and thus poses significant environmental risk and unmitigated financial liabilities to the Government of the Northwest Territories (GNWT). Defendable processes and procedures to assess contamination at the waste site are required prior to selection of suitable mitigation and closure requirements. A brief summary of concerns regarding the proposed C&R Plan include:

- The C&R Plan has not been signed or stamped by a professional engineer or geoscientist registered in the NWT who specializes in this area.
- Inadequate final cover system design (i.e. a layer of sand and gravel does not minimize the infiltration of water into the waste mass).
- Methods proposed for the prevention and minimization of leachate has not been substantiated with literature reviews, research or case studies.
- The report mentions inspection of the bulky waste/hazardous waste area but no mention of inspection of the remaining landfill or how this will be done.

- Plans for on-going monitoring of surface water and/or groundwater is not provided (i.e. sampling surface water for metal parameters alone is not sufficient).
- A landfill is considered a contaminated site, and as such, a process to identify environmental liability is required (i.e. Phase 1, 2 and 3 Environmental Site Assessments) prior to closure and reclamation. This site has been in operation since the 1970's and waste from the Industrial, Commercial and Institutional (ICI) sector has been deposited in the landfill. This is further reason that an environmental site assessment is required.
- Lack of details on post-closure monitoring (i.e. ongoing monitoring and maintenance of a landfill typically happens for at least 25 years after a facility is closed; Section 3.10 of the C&R Plan suggests that it will end in the fall of 2016).
- Climate change implications were discussed in Section 3.11 but there is no acknowledgement of the permafrost degradation and its impact on leachate.

Further to this, ENR and the Department of Municipal and Community Affairs (MACA) have collaborated on this letter and concur that the C&R Plan is not sufficient for the closure of the Deline landfill site. ENR and MACA commit to working together with the Community of Deline and the Board to develop a C&R Plan that is acceptable to these parties.

Sincerely,



Patrick Clancy  
Environmental Regulatory Analyst  
Environmental Assessment and Monitoring  
Land and Water Division  
Department of Environment and Natural Resources  
Government of the Northwest Territories

cc: Olivia Lee, Manager – Infrastructure and Project Management, MACA  
Harvey Gaukel – Manager, Environmental Protection, ENR  
Jeff Walker – Regional Superintendent, Sahtu Region, ENR  
Laurie MacDonald – Regional Environmental Coordinator, Sahtu Region, ENR  
Diep Duong, P.Eng. - Manager, Waste Reduction and Management, ENR