

22 July 2009

Thomas Kabloona, Chair  
Nunavut Water Board  
P.O. Box 119  
Gjoa Haven  
NU, X0B1J0

**Re: Water Licence 2BB-MEL0709: Part D: Conditions Applying to Waste Disposal: Clause 7**

Dear Mr. Kabloona;

On behalf of Comaplex, I am writing to the board for approval in regards to Part D: Clause 7 of our above noted water licence. This clause states:

*Unless otherwise approved by the Board, the Licensee shall contain all greywater in a sump located at a distance of at least thirty (30) metres above the ordinary high water mark of any water body, at a site where flow into a water body is not possible and no additional impacts are created.*

Since the Meliadine West camp was established in the 1990s, Comaplex has directed its greywater to a wetlands area adjacent to the camp. Within the wetlands, the water firstly enters a sump, thereby allowing the settling of suspended solids and partial treatment. The sump is located at a distance more than 30 metres from the high water mark. From here, the water flows on a broad front through vegetation where filtering occurs and nutrients are used by bacteria and vegetation. What water remains after passing through the sump and wetland vegetation reaches Meliadine Lake.

Two monitoring locations, Mel 3 and Mel 4, document the 2008 sample data and show good treatment in the wetlands, with no adverse effects noted to the lake itself. Please note the results for fecal coliforms were compromised by ducks and geese feeding and residing in the wetlands, particularly in the vicinity of the sump. All toilet products at the camp are presently incinerated.

2008 Greywater Treatment in Wetlands - Meliadine West Camp						
		pH	BOD (mg/l)	TSS (mg/l)	Faecal Coliforms (counts/dl)	Oil & Grease (mg/l)
MEL3	30-Jun-08	7.4	32	10	5000	7
MEL3	19-Aug-08	7.55	17	39	1600	2
MEL4	30-Jun-08	7.24	<2	3	<1	<1
MEL4	19-Aug-08	8.41	<2	<3	19	<1
MEL 4	14-Oct-08	6.7	<2	3	1	<1

At this time, a brand new Biodisk wastewater treatment plant is being commissioned at the camp. Once operational, it will add another measure of treatment for the greywater and toilet wastes before discharge to the wetlands. A new and much larger wetlands area will also be commissioned for this system.

We request the Board's approval to continue to use the wetlands for treatment of greywater with the flow of water over-topping the sump and, as per previous years, eventually reaching Meliadine Lake. In addition, we are also requesting use of the wetlands to receive treated wastewater flowing from the Biodisk treatment plant into a sump. From here, the sump is expected to overflow into the wetland vegetation with the water ultimately reaching Meliadine Lake. If approved, monitoring at stations MEL 3 and MEL 4 will continue but at slightly different locations to match the discharge path from the Biodisk treatment plant. The monitoring should provide data on the effectiveness of the overall treatment process.

We look forward to the Board's approval and remain available to answer any questions that may arise.

Yours sincerely,

*Original signed by John Witteman*

John Witteman  
Environmental Consultant to Comaplex

Cc. Steve Hartman, Jackson Lindell – KIA  
Phyllis Beaulieu, Manager of Licencing, NWB