



Canada Research Chair in Polar and Boreal Ecology

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Nunavut Water Board

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Subject : 8WLC-EMI1516 'Ecosystem monitoring in the Igloolik Area' Project

Dear Ms. Beaulieu

The Canada Research Chair in Polar and Boreal Ecology is pleased to submit a copy of the annual water report for our activities undertaken on Igloolik Island, Nunavut (N69.3988, W81.5413). This report summarizes our water use and deposit of waste at this site between June 11th, 2015 to July 23th, 2015. This report is submitted in accordance with the approval for the use of water and deposit of waste without a licence (Approval No.: 8WLC-EMI1516).

Enclosed you will find the books and records (Table 1) of all water use and deposit of water for the undertaking period, as well as the methodology we used to estimate water use and deposit of waste. If there are any questions regarding this report, please contact Nicolas Lecomte at 506-858-4291 or nicolas.lecomte@UMoncton.ca.

Sincerely,

N Lecomte

Nicolas Lecomte

1. **Water use**

1.1 - Methodology used to calculate amount of water used

We collected water from water bodies using 20L-water containers. We measured the total quantity of water used daily for 10 days distributed throughout the whole field season (see data marked with ** in the Table 1) using the number and fractions of the 20L-water containers used per day (rounded to the closest 5L). We then divided the total quantity used for a given day by the number of person present at the camp that day. We used the measure of the maximum daily value of water used per person to extrapolate our water consumption for every day of the field season based on the daily number of person living in the camp, which we recorded exactly throughout the entire field season.

2. **Waste deposit**

2.1 - Methodology used to calculate amount of waste deposit

We collected all grey water in 10L buckets. We measured the total quantity of waste deposited daily for 10 days distributed throughout the whole field season (see data marked with ** in the Table 1) using the number and fractions of the 10L-water containers used per day (rounded to the closest 2.5L). We then divided the total quantity deposited for a given day by the number of person present at the camp that day. We used the measure of the maximum daily value of water deposited per person to extrapolate our waste water production for every day of the field season based on the daily number of person living in the camp, which we recorded exactly throughout the entire field season.

2.2 - Type of waste

We deposited grey water only. Sewage was kept in plastic bags in waterproof barrels and disposed regularly at the Igloodik dump.

2.3 - Location of waste deposit

Grey water was poured in a shallow pit located at more than 40 m from the ordinary high water mark of any body of water.

2.4 - Measures taken to avoid or mitigate any adverse impacts of the deposit of waste.

The grey water pit was always located at a safe distance from any body of water and has been

filled at the end of the undertaking.

Table 1 – Records of water used and deposit of waste at the Igloolik site, from June 11 to July 23, 2015.

Day	Number of person at site	Quantity of water used (L)/person	Total quantity of water used (L)	Quantity of waste deposited (L)/person	Total quantity of waste deposited (L)
11/06/2015	7	5.7	40**	4.3	30.0**
12/06/2015	7	6.3	44	5.0	35.0
13/06/2015	7	6.3	44	5.0	35.0
14/06/2015	7	6.3	44	5.0	35.0
15/06/2015	7	5.0	35**	4.6	32.5**
16/06/2015	7	6.3	44	5.0	35.0
17/06/2015	7	6.3	44	5.0	35.0
18/06/2015	7	6.3	44	5.0	35.0
19/06/2015	7	6.3	44	5.0	35.0
20/06/2015	8	6.3	50**	4.7	37.5**
21/06/2015	8	6.3	50	5.0	40.0
22/06/2015	8	6.3	50	5.0	40.0
23/06/2015	8	6.3	50	5.0	40.0
24/06/2015	8	6.3	50	5.0	40.0
25/06/2015	8	4.4	35**	5.0	40.0**
26/06/2015	8	6.3	50	5.0	40.0
27/06/2015	8	6.3	50	5.0	40.0
28/06/2015	8	6.3	50	5.0	40.0
29/06/2015	8	6.3	50	5.0	40.0
30/06/2015	8	5.0	40**	4.1	32.5**
01/07/2015	8	6.3	50	5.0	40.0
02/07/2015	8	6.3	50	5.0	40.0
03/07/2015	8	6.3	50	5.0	40.0
04/07/2015	8	6.3	50	5.0	40.0
05/07/2015	8	5.0	40**	4.4	35.0**
06/07/2015	8	6.3	50	5.0	40.0
07/07/2015	8	6.3	50	5.0	40.0
08/07/2015	8	6.3	50	5.0	40.0
09/07/2015	8	6.3	50	5.0	40.0
10/07/2015	8	5.6	45**	4.4	35.0**
11/07/2015	8	6.3	50	5.0	40.0
12/07/2015	8	6.3	50	5.0	40.0
13/07/2015	8	6.3	50	5.0	40.0
14/07/2015	8	6.3	50	5.0	40.0
15/07/2015	8	5.6	45**	5.0	40.0**
16/07/2015	8	6.3	50	5.0	40.0
17/07/2015	8	6.3	50	5.0	40.0

Day	Number of person at site	Quantity of water used (L)/person	Total quantity of water used (L)	Quantity of waste deposited (L)/person	Total quantity of waste deposited (L)
18/07/2015	8	6.3	50	5.0	40.0
19/07/2015	8	6.3	50	5.0	40.0
20/07/2015	8	6.3	50**	4.7	37.5**
21/07/2015	8	6.3	50	5.0	40.0
22/07/2015	8	6.3	50	5.0	40.0
23/07/2015	8	4.3	35**	4.4	35.0**
AVERAGE	7.8	6.1	47.0	4.9	38.1
TOTAL			2023		1640
TOTAL (m³)			2.02		1.64

**Measured