

Nunavut Water Board License 3BC-KAR0812: Annual Report

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Required information for annual reporting, as described in Section 2.1 of Nunavut Water Board's Guide 7:

Introduction : Data generated under the monitoring program

Knowledge of survival and reproduction are vital to conservation and management of wildlife. Research occurring in the Karrak Lake Project Area (camps at Karrak Lake, North Karrak River, and Perry River) focus primarily on the population, nutritional, and breeding biology of Lesser Snow, Ross's, Cackling, and Greater White-fronted Geese, King Eiders, and Long-tailed Ducks. This research estimates annual adult survival and productivity (e.g. clutch size, nest survival) of each species, as well as factors affecting these vital rates (e.g. weather, abundance of small mammals).

Quantities of water used

Karrak Lake: Water use during the 2010 field season (10 May to 15 August) was for domestic purposes only, at a rate of 20-40L per day. Prior to melt, water was obtained by melting ice from Karrak Lake. During and after ice-breakup on Karrak Lake, water was obtained by pumping into a 175 L holding tank located on the deck of the main cabin. Water was treated with 5% chlorine bleach prior to use.

North Karrak River: Water use during 2010 was for domestic purposes only, and restricted to the following time periods: 12-15 June, 25-28 June, and 27-30 July. The rate of water use was 20L per day. Water was manually obtained from the North Karrak River, and was treated with 5% chlorine bleach prior to use.

Perry River: Water use during 2010 was for domestic purposes only, at a rate of 20L per day, and only during 10-20 July. Water was manually obtained from nearby fresh water bodies.

Quantities of waste discharged and disposed

Water disposal at all three sites was by leaching into soil at least 100 m from high water marks, with quantities very similar to that described above.

Summary of any modifications and/or maintenance work carried out

Karrak Lake: A storage cabin was constructed to facilitate maintenance and storage of motors during the field season and in the off-season, respectively. The building is constructed of plywood and lumber, and the floor joists rest on boulders and/or gravel substrate (no excavation).

North Karrak River: A cabin for housing of field staff was constructed; specifications as described above.

Perry River: The existing cabin received minor repairs, and was purged of garbage, which was shipped to Cambridge Bay for disposal.

List of unauthorized discharges and follow-up actions

No unauthorized discharges occurred at any site during the 2010 field season.

Summary of any abandonment and restoration work completed

Research at all three sites is ongoing, and as such, no abandonment work has been undertaken to date. Progressive reclamation as described in the attached 'Abandonment and Restoration Plan' is ongoing.

Any updates or revisions to management plans and/or manuals

The 'Spill Contingency Plan' and 'Abandonment and Restoration Plan' have been amended and are attached.

Summary of any studies or reports requested by the Board and a description of any future studies planned

Three progress reports are included with this Report. Research activities planned for 2011 are similar to 2010.

Any other details requested by the Board that relate to water use and/or waste disposal

Deficiencies identified in the 2010 report:

GPS coordinates of source water and greywater disposal:

Karrak Lake: 67° 14' 14" N, 100° 15' 33" W

North Karrak River: 67° 21' 9" N, 100° 20' 59" W

Perry River: 67° 41' 41" M, 102° 11' 27" W

As per NWB's letter dated 15 September 2010, we will consult EC's 'Technical Document on Batch Waste Incineration', and continue to take care to not disturb archeological sites.

We thank NWB and all interested parties for comments. Please direct any questions or concerns to Dana at the address listed above.