

Northwestern Affairs Program
P.O. Box 100
Iqaluit, NWT
XOA OHO

September 23, 1993

Mr. Henry Boychuk
Senior Administrative Officer
Hamlet of Broughton Island
Broughton Island, NWT
XOA OBO

Your file Votre référence

Our file Notre référence

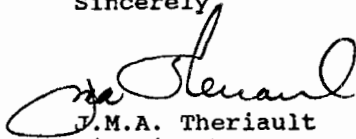
Dear Mr. Boychuk;

B9545-5-N4L4-0640

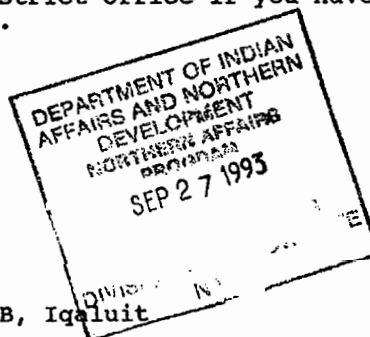
Re: Northwest Territories Waters Act
Water Licence N4L4-0640
Hamlet of Broughton Island, NWT
Inspection Report - 14 July, 1993

1. Please find the above noted report by Paul Smith, Water Resources Officer, Baffin District.
2. The inspection report has identified a number of concerns which you will wish to note - please refer to paragraph 16 of the report.
3. While the final analysis of water samples collected during the inspection are not yet available, it was noted that the pH of the water tested on 14 July 1993 was below the 6.5 level as recommended by the Canadian Drinking Water Guidelines. For this reason, our office encourages the continued use of lime to raise the pH of the drinking water. We will send you a copy of the analysis of the water samples collected when they have been received by this office.
4. Please find enclosed a copy of the new Northwest Territories Waters Act and its accompanying regulations. You will also find enclosed a copy of the 1992 Compliance Report for the Hamlet of Broughton Island.
5. Please feel free to contact our District Office if you have any questions or comments on this report.

Sincerely,


J.M.A. Theriault
District Manager
Baffin District

cc: - Water Resources, YK
- Environmental Health Officer, BRHB, Iqaluit
- Project Officer, MACA, Iqaluit
- Renewable Resources, Iqaluit



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0640-2
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MACA

INSPECTION REPORT

WATER MANAGEMENT

HAMLET OF BROUGHTON ISLAND

14 JULY 1993

BY

PAUL SMITH

INSPECTOR UNDER THE NORTHWEST TERRITORIES WATER ACT

NORTHERN AFFAIRS PROGRAM

IQALUIT, NT

DATE: 21 JULY 1993
WATER REGISTER: N4L4-0640

INSPECTION REPORT

Water Supply

1. During the summer months water is taken from the Tulugak River. Water from the Tulugak River is used to fill the reservoir. Historically, the pH level of the Tulugak River, and hence the reservoir, has been relatively acidic. For this reason the inspector was asked by Mr. Rick Armstrong, Project Officer, Municipal and Community Affairs (MACA) to test the pH in the reservoir, at the truckfill site, and to take several readings up the river. Health and Welfare guidelines recommend that drinking water have a minimum pH of 6.5. Water from the Tulugak River is typically around 6.0, but field values as low as 5.73 were recorded this summer (see Table 1). To raise the pH of this water, lime is added to the water truck when it is taking on water. The truck operator is responsible for doing this.

2. The reservoir was inspected. It was noted to have about 2 m of freeboard. The liner was visible in many places, and at three locations air trapped under the liner had caused the liner to float and be visible above the present surface. In conversation with Mr. Armstrong, he stated that the reservoir will be drained this summer. He stated that doing so would allow both repairs to be made (to the liner and concrete supports of the intake pipe to the pump house) and for fresh water being used to refill the reservoir.

3. Several pieces of windblown garbage were observed in the reservoir. It was noted in the 1992 inspection that local concern had been expressed about the fact that the prevailing winds would carry garbage from the new waste disposal site towards the reservoir. The two sites are about 1 km apart. This illustrates the immediate need for fencing at the dumpsite. Mr. Armstrong said that MACA would make available funds so that fencing could be put up this summer.

Waste Disposal

4. A new waste disposal site was commissioned last year. Sewage, domestic waste, waste metal and waste oil are all disposed of at this location. It is located off the road to the Short Range Radar Site (Broughton Island) about 2 km from town. The site is on the levelled area of a hillside and is approximately 450 m from the ocean.

Sewage

5. Prior to the inspection, the inspector had been asked by Mr. Armstrong to note the level of the lagoon. One corner of the

lagoon's wall is low, and as a result, sewage from the past winter was reported to have almost overflowed the lagoon's wall in this area. Mr. Armstrong said that the corner area would be built up this summer. Mr. Les Kuniliusi, Hamlet Foreman, said that the lagoon had been decanted the week before. It is their hope that the decant can be channelled into the lower portion of the Tulugak River and be carried the 400m to the sea. In consultation with Mr. David Paridis, Senior Environmental Health Officer, Baffin Regional Health Board (BRHB), it was recommended that the decant be channelled to the river. As there is no chance of contaminating the water supply, it was felt that this method would be more desirable than decanting it onto the land in one large surge.

Bagged Sewage

6. Sewage bags are thrown over a steep sided area. A bermed area below catches run-off. Last year 12 houses still used bagged service. It was not determined how many housing units would be converted to trucked pumpout service this year.

Domestic Waste

7. The area is well burned, but due to the steep slope, once garbage is bulldozed over the edge, it is susceptible to the wind. The steepness of the slope also makes it very hard to place an effective granular cover over used portions. Wind blown garbage was noted throughout the area. As noted above, a fence will be built to reduce the amount of wind blown garbage.

Waste Metal

8. Assorted materials are disposed of in this area. No concerns were noted.

Waste Oil

9. A bermed area containing 20 drums of waste oil was observed. The depression in which the drums were sitting was heavily stained with oil.

10. The one hundred and fifty drums identified last year as belonging to the Hunters and Trappers Association (HTA) are still present in the same location (between the Renewable Resources Office and the HTA building). The site must be cleaned up. The ground is heavily stained. This site is also very close to the ocean and poses a significant pollution threat, as well as a fire hazard.

Bulk Fuel Storage

11. The facility appeared to be in excellent condition. There was no water within the bermed area. Siphon hoses were still in place. No concerns were noted.

Warning Signs

12. A warning sign was in place at the water reservoir, as required by the licence. In accordance with the intent of the Licence (Part A, Item 7) the following requirements for signs should be addressed by the Hamlet;

- a) that a warning sign be placed at the Tulugak River truckfill site;
- b) that a warning sign be placed at the entrance to the waste disposal site, and;
- c) that a warning sign be placed at the sewage outfall location (where the Tulugak River enters the sea).

Records

13. Records of water use are maintained by the Hamlet.

Surveillance Network Program

14. Water quality samples were collected from the following locations:

- 0640-01 Raw water supply intake at the Tulugak River.
- 0640-02 Raw water supply intake at truck fill station at the reservoir.

Note: Because sewage lagoon had been decanted the week before, sample 0640-04 could not be collected as there was no runoff.

15. The water licence will require to be amended to reflect the changes in terms of the relocation of the sewage lagoon.

Discussions/Concerns

16. The following requests/concerns are asked to be addressed by the Hamlet:

- a. It is requested that the Hamlet notify this office when warning signs have been posted and when fencing has been placed at the domestic waste disposal site.

16. The area by the Renewable Resources office where all the 205 l drums are located must be restored (all drums should be relocated to an acceptable location, such as the waste oil storage area at the waste disposal site).

17. The inspector was able to meet briefly with Mr. Les Kuniliusi, Hamlet Foreman. His assistance was appreciated while in Broughton Island.

Paul Smith
Water Resources Officer
Baffin District

Table 1

Field Test of pH in the Tulugak River
Broughton Island - 14 July, 1993

Sample	Location	pH
1	In reservoir beside the intake lines.	6.01
2	At truck fill station on the Tulugak River.	6.42
3	The end of the pipeline that fills the reservoir. Approximately 100m upstream.	5.88
4	A 100m further upstream than sample 3.	5.73
5	A 100m further upstream than sample 4.	5.82

1992 COMPLIANCE REPORT
ON THE
HAMLET OF BROUGHTON ISLAND
BY

PAUL SMITH
INSPECTOR UNDER THE NORTHERN INLANDS WATERS ACT
NORTHERN AFFAIRS PROGRAM
INDIAN AND NORTHERN AFFAIRS
IQALUIT, NT

DATE: 28 APRIL, 1993
WATER REGISTER: N4L4-0640

INTRODUCTION

The Hamlet of Broughton Island is located on Broughton Island just off the easterly coast of Baffin Island at 67 33' North latitude and 64 02 West longitude.

The Hamlet's licence is effective from 1 October 1985 to 31 December 1995 inclusive.

The Licensee is permitted to use 30,000 cubic meters of water per year.

Part A - General Conditions

The Annual Report was submitted 26 February 1993. It was due 1 March 1993.

The Licensee has not complied with all sections of the "Surveillance Network Program" (SNP) in accordance with Part A, Item 5 of the Water Licence. In particular, the monthly quantity of water taken from SNP station 0640-01, the monthly number of truckloads of sewage disposed of and the monthly quantity of honeybags disposed of were not reported.

The Inspector was informed, during the 1992 inspection, the reclamation of the abandoned waste disposal site would commence during the summer of 1993.

Warning signs at the new waste disposal site had not yet been erected during the 1992 inspection. The Inspector requested that warning signs be placed at the dump, sewage disposal and outfall areas once construction was completed.

There were no reported spills within Municipal boundaries in 1992.

Part B - Conditions Applying to Water Supply

The Hamlet reported that a total of 12,375 cubic meters of water was used in 1992. The Hamlet is permitted to use 30,000 cubic meters of water per year.

Part C - Conditions Applying to Sewage Disposal

A new sewage lagoon was constructed during the summer of 1992. All trucked sewage is now deposited within that receiving structure. Bagged sewage is disposed of at the waste disposal

site. There is a bermed area below the disposal site to retain all runoff from this bagged sewage disposal area.

The Hamlet has not submitted to the Board a report on plans for reducing the public health hazard from the disposal of greywater adjacent to buildings in accordance to Part C, Item 4. The report was due on December 3, 1987. This point was raised in the last compliance report of 1989. It may be that this problem has ceased to be as houses are fitted with sewage tanks. If this is the case the Licence will need to be amended if matter is now cleared up.

Part D - Conditions Applying to Solid Waste Disposal Sites to Prevent Contamination of Receiving Waters

Approval to relocate the waste disposal site was granted by the NWT Water Board on 19 September 1989. Construction and relocation of the new waste disposal site occurred in 1992.

Part E - Conditions Applying to Modifications

The Board has not received notification to date to modify the Water Supply and Waste Disposal facilities.

To date no "as-built" drawings have been submitted in accordance with Part E, Item 3 for the new waste disposal site. The reason for this was that there was no engineer on site that could provide these drawings. In talking with a representative from MACA, the Inspector was informed that hopefully these plans would be submitted this year. The "as-built" plans are due within one (1) year of completion of the project. Construction was still on-going during the 1992 inspection (14-15 August).

Surveillance Network Program

Part B - Flow Measurement and Recording Requirements

The Hamlet has not met the conditions.

Part C - Reports

The Hamlet has not met the conditions because the conditions of the SNP, Part B (above) were not met.

Conclusion

The Hamlet of Broughton Island's compliance with the Northern Inland Waters Act and Water Licence N4L4-0640 has been unacceptable in two (2) areas. These are:

1. The Surveillance Network Program requirements have not been met.
2. A report due on 3 December 1987 on plans to reduce public hazard resulting from the disposal of greywater adjacent to buildings has not been submitted.

Paul Smith

Inspector Under the
Northern Inland Waters Act