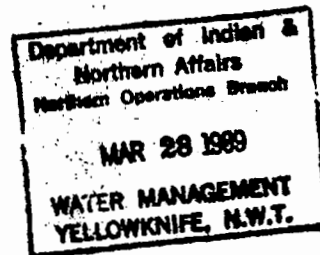




→ Water Res yn

Northern Affairs Program
P.O. Box 100
Iqaluit, N.W.T.
XOA OHO



March 15, 1989

Mr. Chuck Gilhuly
Senior Administrative Officer
Hamlet of Cape Dorset
Cape Dorset, N.W.T.
XOA OCO

Your file Votre référence

Our file Notre référence

B9545-5-C15

Re: Inspection Report - Cape Dorset, N.W.T.
September 1 and 2, 1988

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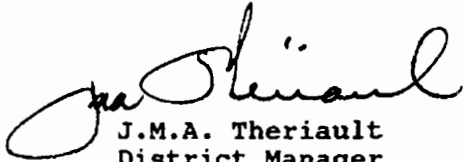
Enclosed please find the above noted report prepared by Mr. David Jessiman, Water Resources Officer, following the September 1 and 2, 1988 inspection.

The inspection report identifies a number of concerns that require your attention:

1. The inspector commends the efforts of Mr. Gilhuly and the Hamlet Council to develop plans to relocate the Metal Waste Disposal Site. The inspector strongly supports the Hamlet's initiative to prevent the existing health, safety and environmental hazards associated with the disposal site.
2. It is strongly recommended that the Domestic Landfill site, Sewage Lagoon and the Bagged Sewage Pit be abandoned and restored once a new Landfill site has been selected and constructed. The disposal areas are within 300 and 400 metres of the community.
3. The inspector recommended that the Old Abandoned Landfill Site be cleaned-up and completely restored. It is suggested that large boulders / rip-rap be used to face the exposed seaward perimeter of the landfill site.
4. Since Cape Dorset is not a Licensed community, it is still recommended that warning signs be posted near the freshwater facilities, sewage disposal areas, and at the solid waste sites.

Enclosed please find the results of the water quality samples collected while in Cape Dorset. The results are within the acceptable limits set by the Guidelines for Canadian Drinking Water Quality.

Please accept my apologies for the delay in providing you this inspection report. If you have any questions or comments on the report, please feel free to call Mr. David Jessiman, Water Resources Officer at (819) 979-4405.



J.M.A. Theriault
District Manager
Baffin District

cc. Water Resources, YK
GNWT - DPW - S. Kennedy
GNWT - MACA - M. Ferris
BRHB - L. Wilson

encls/2

INSPECTION REPORT
ON THE
HAMLET OF CAPE DORSET
SEPTEMBER 1 AND 2, 1988
BY

DAVID JESSIMAN
INSPECTOR UNDER THE NORTHERN INLAND WATERS ACT
NORTHERN AFFAIRS PROGRAM
INDIAN AND NORTHERN AFFAIRS CANADA
IQALUIT, N.W.T.

DATE: March 14, 1989
WATER REGISTER: N/A

INTRODUCTION

On September 1 and 2, 1988, David Jessiman, Water Resources Officer of the Baffin District conducted an inspection of the water use and the waste disposal practices of the Hamlet of Cape Dorset, N.W.T. The inspector met with Mr. Chuck Gilhuly, Senior Administrative Officer, Hamlet of Cape Dorset, to discuss the results of the inspection. Points of contact with the Government of the N.W.T. - Department of Public Works and Highways was Mr. Jim Freda, Settlement Maintenance Supervisor. Mr Freda accompanied the inspector for portions of the inspection.

INSPECTION

Water Supply

The Hamlet's freshwater supply is obtained from Tee Lake located approximately one kilometre southwest of Cape Dorset. The intake facilities are located on the southern end of Tee Lake. Water flows from a submersible pump located 60 metres from the lakeshore to the heater house. The water is gravity fed from the 1 200 litre tank in the heater house through a 75 millimetre insulated pipeline to the Truck-Fill Building located approximately 2 050 metres away.

The intake facilities, shoreline, and water conveyance pipeline was inspected and no concerns were noted. The heater house was not inspected as access was not possible. The house is located at the high point of the system and contains three circulating water heaters used during cold weather conditions. During periods of extremely cold weather the heat trace along the pipeline is activated.

The Truck-fill Building contains a 91 000 litre holding tank and truck-fill dispenser. Water treatment consists of Javex TM Bleach being added to the 4 550 litre water trucks prior to distribution. The Hamlet records the number of truck loads delivered. The building was inspected and no concerns were observed.

No warning signs were posted near Tee Lake and the Truck-fill Building.

Sewage Disposal

Liquid sewage is collected by a 4 550 litre pumpout truck and sewage bags are collected by the domestic garbage truck.

Liquid sewage is deposited into a partial sewage lagoon measuring approximately 30 by 52 metres. Sewage is held within a rock bluff and a 50 metre sand / gravel berm. The berm holds the liquid prior to an uncontrolled decant through a rock rip-rap depression. Sewage flows into a shallow trench to an access road. The trench measures approximately 0.60 metres wide by 0.20 metres deep and 25 metres long. The trench is constructed in coarse rock and flows along the edge of the rock bluff. The sewage then seeps through the access road (coarse rock) and over a rocky slope with a grade of approximately 30 percent. The sewage flows into the tidal flats of Tellik Inlet. The sewage would be periodically flushed out depending on the tidal conditions.

The bagged sewage is trucked to a pit adjacent to the sewage lagoon. The sewage pit measures approximately 20 by 20 metres. The sewage pit is bermed by pit-run granular material. The pit was observed to be very full and no recent restoration was evident.

Mr. Gilhuly mentioned that approximately 50 houses continue to use sewage bags and five (5) to ten (10) houses per year are being modified to accept water and sewage tanks. He added the program will be discontinued this year. Sewage is collected five (5) to six (6) times a day and five (5) days a week. The present population of Cape Dorset is approximately 1200 persons. Mr. Gilhuly mentioned that the sewage lagoon and pit will have to be increased in size to properly accomodate the steady growth of the community.

Solid Waste Disposal

The Domestic and Metal Waste Disposal Sites are located west of Cape Dorset.

The Domestic Landfill Site was inspected and no operational concerns were observed. The site was well maintained and garbage was routinely burnt and capped with granular material. The landfill site area is very small and future expansion would be limited.

Mr. Gilhuly indicated that the Hamlet needs a new Landfill Site away from the community as houses are within 300 metres of the present landfill site. The Hamlet and the Government of the N.W.T. are developing plans to establish a new site.

The Metal Waste Disposal Site was inspected and a vast amount of scrap metal, culverts, steel drums, sewage tanks, snowmobiles, trucks, and tracked vehicle wrecks were lined up along a rock outcrop. The metal waste site extends for approximately 100 metres. Burial is not possible due to the rocky conditions.

DISCUSSION

After the inspection a discussion was held with Mr. Gilhuly and the following concerns were noted:

1. The Metal Waste Disposal Site was discussed and Mr. Gilhuly advised the inspector that the Hamlet Council wants the site to be relocated to prevent the existing health, safety, and environmental hazards. The disposal site is within 300 metres of the community and is easily accessible by the public. The Hamlet and the Government of the N.W.T. are developing plans to relocate the scrap metal to a new proposed site.

During the inspection the Fire Department had to respond to a fire in the metal waste disposal site. The fire was caused by young children burning numerous old rubber tires.

2. The Domestic Landfill Site was discussed and Mr. Gilhuly mentioned that the existing site is too small and too close to the houses. The site should be abandoned and restored once the larger site has been selected and constructed.

3. The present Sewage Lagoon is of adequate size and appears to be working well during summer months. During winter months the lagoon would freeze solid and the effluent would glaciare the surrounding area. The inspector recommended that the Hamlet should strongly consider redesigning a sewage disposal system when the landfill site is relocated. The current sewage lagoon is in close proximity to the landfill sites and the community.

4. The Bagged Sewage Pit should be covered with granular material in order to reduce the health and environmental hazards. It was observed that the sewage pit was full and beyond capacity. Mr. Gilhuly indicated that the Hamlet are going to extend the pit and cover the exposed areas.

5. The inspector recommended that the Old Abandoned Landfill Site be cleaned up and completely restored. It is suggested that large boulders / rip-rap be used along the perimeter of exposed seaward side of the landfill site. Additional fill will be required to properly cap the perimeter of the site.

6. Since Cape Dorset is not a Licensed Community, it is still recommended that warning signs be posted near the Freshwater Facilities, Sewage Disposal Areas, and at the Solid Waste Sites.

The co-operation and assistance provided by Mr. Chuck Gilhuly, Senior Administrative Officer, Hamlet of Cape Dorset, and Mr. Jim Freda, Settlement Maintenance Supervisor, GNWT - DPW, was greatly appreciated.

David S. Jessiman



Inspector Under the
Northern Inland Waters Act