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May 25, 2001

NWB3CAP

Your file - Votre référence

Our file - Notre référence

Ms. Rita Becker
Licensing Administrator
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU, X0B 1J0

Dear Ms. Becker,

Re: Water Licence Application of Cape Dorset

On behalf of the Department of Indian and Northern Affairs, I am pleased to submit the following comments on the municipal water licence application of Cape Dorset.

1.0 INTRODUCTION

This submission, on the application for a Municipal Water Licence by the Municipality of Cape Dorset, is submitted and presented on behalf of the Operations Branch of the Department of Indian and Northern Affairs Canada.

This submission will be based on the Water Licence Application received by the Nunavut Water Board on April 19, 2001 and past visits by the Departmental Inspector.

2.0 CONDITIONS APPLYING TO WATER USE

The Municipality currently gets raw water from Tee Lake which is situated approximately 1 km south of the community. There is a pumphouse at the intake. The water is tempered and pumped downhill via an insulated pipe where it is stored until collected by a delivery truck. Water consumption was approximately 30,000 m³/year in 1997. The expected water consumption in 2006 is not available in our files, but the expected sewage generation in 2006 after taking into account the population growth as a result of Teritorial Government decentralization is 57,100 m³/year (according to the Ferguson Simek Clark design brief of June 1996). Water consumption will therefore likely be approximately the same.

DIAND recommends that clauses be included in the Water Licence to identify the water supply source, the reservoir and the volume limits for all purposes. In this case the source is Tee Lake and the annual volume should not exceed 70,000 m³/year for the term of this licence. This amount also takes into consideration the estimated population growth as a result of Territorial Government decentralization. Further, we recommend that an assessment be made to see if Tee Lake is capable of supporting such usage beyond the term

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of this licence.

The intake hose should also be equipped with a mesh size sufficient to ensure no entrainment of fish.

A SNP Station should be established to measure the volume of intake. Since the source lake is located far from town, it would probably much more practical to place the SNP Station at the truck fill station, prior to the water being treated.

3.0 CONDITIONS APPLYING TO WASTE DISPOSAL

The existing sewage facilities include a 3-cell (with plans for possibly building a 4th) sewage lagoon. The estimated capacity of the existing lagoon is 27,000 m^3 with a retention time of 50 days and an estimated rate of discharge is 172 m^3/day. The most visible area of flow should be sampled annually, during periods of flow and analyzed for parameters based on the Northwest Territories Water Board's "Guidelines for the Discharge of Treated Municipal Wastewater in the Northwest Territories."

DIAND recommends that the sewage lagoon effluent be sampled annually, during periods of flow and analysed for the following parameters until such a time that improvements can be made or a new sewage treatment facility be constructed:

Total Suspended Solids	180 mg/L
BOD	120 mg/L
pH	6 - 9
Oil and Grease	No visible sheen
Ammonia	Monitor only

A SNP Station should be established at this flow site.

It has been mentioned in the application that during spring runoff, the water washed out the end of the lower cell and overflows the upper 2 cells. This leaves no room for additional sewage. To temporarily solve this problem the Municipality is still using their older sewage lagoon. Monitoring should therefore also take place at this sewage lagoon for as long as it is still in use. This will therefore require another SNP Station.

There is an existing waste disposal site, however, there are no procedures in place for the proper operation and maintenance of the site to prevent contamination to surrounding waters. The procedures for the proper operation of the solid waste disposal site can be included with the Operation and Maintenance Plan.

DIAND recommends that all solid waste be deposited at the solid waste disposal facility or at a facility approved by the Board. An SNP sampling site would be appropriate at the solid waste disposal site to monitor annual runoff but the parameters should not be too

onerous on the Municipality.

DIAND also recommends the placement of warning signs at the reservoir, water supply and waste disposal facilities. These signs are to be maintained to the satisfaction of an Inspector.

4.0 CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION

There are indications in the application that the Municipality is looking into the possibility of finding a new sewage lagoon site or building a sewage treatment plant. If the current waste lagoon, or an waste disposal or water use facilities, is to be abandoned for a new facility then the licensee should be required to provide the Board with an abandonment and restoration plan prior to abandoning the existing facility.

Also, the old sewage lagoon which is being used temporarily until the problems with the current lagoon are resolved will also require an abandonment and restoration plan when it is finally abandoned.

DIAND recommends the requirement for an abandonment and restoration plan prior to abandoning any waste disposal or water use facility. The plan should also require the Board's approval.

5.0 CONDITIONS APPLYING TO OPERATION AND MAINTENANCE

Water Resources recommends a requirement for an Operation and Maintenance Plan for the Waste Disposal Facilities be submitted to the Board for approval within 6 months of the issuance of the licence. In addition to the basic requirements, the plan should address the waste metal and the hazardous material disposal areas at the solid waste disposal site, identifying the designated areas and the handling procedures.

6.0 RECOMMENDED TERM OF LICENCE

DIAND recommends a five year licence term to allow enough time for the Municipality to establish a consistent compliance record. This should also give them time to resolve all problems currently occurring with their sewage lagoon.

DIAND also recommends allowing the Municipality and ourselves to review and comment on the draft licence prior to it being issued. This will allow them to express any reservations they may have at this point. Hopefully, any reservations can be resolved early in the process and minimize any non-compliance issues in the future.

If you would like to discuss any of the comments in further detail, please feel free to contact me at (867) 975-4555.

Sincerely,

Michael Roy

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