



April 7, 2004

Mr. Scott Stewart
Water Resource Officer
Field Operations
Nunavut District Office
Indian and Northern Affairs Canada
P.O. Box 100
Iqaluit, NU
X0A 0H0

Dear Mr. Stewart:

Re: Water License Inspection Report Dated March 11, 2004

We have received a copy of the above noted report. I would like to take this opportunity to respond to several of the comments and recommendations contained in the INAC report.

Lake Geraldine Reservoir

The department of Public Works has been informed of the required signage around the reservoir and will be taking steps to install warning signs this summer.

Solid Waste Disposal

The INAC report states that hazardous waste has been reasonably segregated although further work needs to be done. Unfortunately the report does not suggest what further work is required. The City is in the process of obtaining a copy of the Nunavut Hazardous Waste Management Manual. This may become evident once we have reviewed the Hazardous Waste Management Manual. In the interim it would be helpful if INAC could provide some clarification on the further work required with respect to the segregation of the hazardous material.

Public Works will be reviewing the drainage situation as well as the discharge valve at the landfill in the coming weeks to ensure that we will not have an un-controlled release of leachate in the Spring. Prior to the controlled discharge of leachate we are proposing to sample the water and have it tested for heavy metals.

North 40 Metal Dump/Gravel Quarry

As noted in the INAC report, the North 40 quarry has historically been used as a metals dump. The Environmental Sciences Group, 1995 investigation included the collection and analysis of 24 soil samples for heavy metals, 24 soil samples for PCBs, one soil sample for pesticides and acid base neutrals, and five soil samples for PAHs. In addition two water samples were collected and analyzed for heavy metals, and two water samples were collected and analyzed for PCBs.

With the exception of two soil samples analyzed for heavy metals, the results of the soil and groundwater analysis were below the Dewline Commissioning Criteria (DCC) used to evaluate the sample results.

Soil sample L6004 had elevated concentrations of copper (119 ppm vs. 100 ppm DCC Tier 2 criteria). This sample was collected from a drainage tributary in an area with electrical, construction, vehicle, storage tank and plastic and rubber debris.

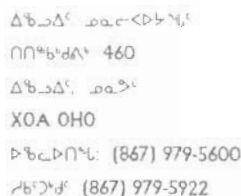
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Sample L6030 had an elevated concentration of lead (249 ppm vs. 200 ppm DCC Tier 1 criteria). This sample was collected from a drainage ditch in an area of heavy staining and in the proximity of a vehicle battery, metal, wood and drum debris.

Based on the results of the 1995 Environmental Sciences Group (ESG) study it is our opinion that there is no evidence of metal contamination in sands and gravel currently being extracted from the Site. The two samples with concentrations of metals above the DCC criteria were collected from areas where metal debris was distributed.

It should also be noted that all of the soil samples were collected from the upper 5 to 10 cm of the soil. Intrusive sampling below the surface was not conducted. There is a high potential for metal particles from decaying debris to become intermixed with the surficial sand and gravel at the site. If during the collection of the surficial samples a small piece of metal from one of the pieces of metal debris was also picked up, then during the digestion process at the analytical laboratory the metal would be dissolved in the course of the acid extraction process and suggest an elevated metal concentration in the analytical results.

It is our opinion that the ESG report findings, as reported, support the continued use of the North 40 as a granular source for the City. We acknowledge that there are areas with environmental impacts where granular material should not be used for City development and road maintenance. In our opinion, the results of the ESG report do not suggest wide spread heavy metal contamination in the North 40.

It is our intention to undertake measures in the summer of 2004 to allow the City to continue to exploit the granular resources in the North 40 while concurrently addressing some of the environmental conditions of the site. These measures include:

- Installation of de-watering pumps to drop the water level in the gravel pit;
- Construction of settling ponds to remove silt from water pumped from the gravel pit;
- Repair of a water diversion dam which is located to the north of the gravel pit. This dam was constructed approximately 30 years ago to divert water from an existing stream to a drainage ditch which runs along the east side of the gravel pit;
- Moving the metal debris currently stored at the site to one location and encapsulating it with cover material. This will allow access to granular materials currently covered by the metal. We anticipate having to remove some granular material from beneath the current location of the metal debris as it is likely impacted from the proximity of the metal storage.
- Collection of soil samples from beneath the metal storage area for analysis of heavy metals to confirm the absence of elevated concentrations of metals.

Prior to commencing these measures the City will submit an Application for Authorization for Works or Undertakings Affecting Fish Habitat to the Department of Fisheries and Oceans.

North 40 Fuel Spill

The City will submit a spill report with respect to the presence of the fuel oil in water in the North 40 during the summer of 2004.





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An environmental investigation was performed in 2003, however the source of the fuel spill was not conclusively identified. In the summer of 2004, the City is planning to excavate the impacted/contaminated soil adjacent to the area where fuel was seeping from the sand and gravel and into the water. We anticipate being able to both identify the source of the contamination and remove it from the North 40 gravel pit.

Sewage Discharges

A new sewage treatment plant is currently being designed and is scheduled to be commissioned in 2006.

A geotechnical investigation was performed on the berms of the current lagoon in 2003. Recommendations included in the report will be implemented during the summer of 2004. This lagoon will be decommissioned once the sewage treatment plant has been commissioned.


Pump Station #1 is scheduled and budgeted to be refurbished during the summer of 2004. This refurbishment will include the installation of a backup generator to provide power to pumps during City power outages. This is expected to reduce or eliminate the frequencies of uncontrolled sewage discharges from this location.

Water and sewer line breaks periodically occur in all municipalities with piped water and sewer systems. The City is planning to obtain an excavator in the summer of 2004 which will reduce our dependence on local contractors and allow us to respond quicker to breaks in our lines.

North 40 Gravel Extraction

The report issued by INAC suggests that the City contact the Nunavut Water Board to request authorization to continue extracting gravel from the North 40 pit. The City of Iqaluit currently has a Quarry Administration Agreement which was originally signed with the Commissioner of the Northwest Territories and since transferred to the Government of Nunavut. This agreement includes the extraction of granular material from the North 40 area. The term of this agreement is for ten years starting July 1, 1997. As such, we would like clarification as to the recommendation included in the INAC report for the City to contact the Nunavut Water Board to continue extraction of granular resources from the North 40.

Regards,


Brad L. Sokaeh
Director of Engineering

W:\Engineering\Correspondance\2004\Response to INAC Letter of March 11, 2004 with respect to Water License Inspection. Our response is dated March 31, 2004.doc

