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November 1, 2001.

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re: City of Iqaluit Landfill Facility Expansion

Seeking approval for the expansion of its current municipal solid waste disposal facility, the City of Iqaluit provided Indian and Northern Affairs Canada (INAC) with a document entitled *Landfill Facility Expansion Preliminary Design Report - Regulatory Submission*, dated August 17, 2001. Subsequently, a *Canadian Environmental Assessment Act* (CEAA) Screening Report relating to the above proposal was submitted by INAC on September 17, 2001. However, despite sediment control and water infiltration concerns outlined in the CEAA report, the City of Iqaluit nonetheless initiated the project according to its proposed design. As such, Dillon Consulting Ltd., the engineering firm retained by the City to design the landfill expansion, produced on October 23, 2001 background information justifying its choice of design for the landfill. Hence, please accept the present letter as a joint response from the federal departments of Fisheries and Oceans (DFO), Environment (EC), and INAC in regards to the landfill expansion work recently undertaken in Iqaluit, Nunavut.

- **Sediment control concerns:** Although the *Preliminary Design Report* reportedly focussed on aspects of stormwater management systems, the location of a sedimentation pond has not been finalized, and its construction is deferred to later stages of landfill development. However, the CEAA report indicated that sediment mobilization needed to be satisfactorily addressed before work was to proceed. Thus, DFO underlines that any failure to employ appropriate siltation control measures can potentially represent a contravention to Subsection 35(1) and/or Subsection 36(3) of the *Fisheries Act*.
- **Water infiltration concerns:** While the CEAA report identified the placement of either a geomembrane or a one (1) metre thick fill cover as adequate means of ensuring that underlying contaminants are not released through subsequent landfill operations, the proponent has opted for a 0.5 metre operational cover; reclamation-standard capping would only occur at the end of the landfill's lifespan. This approach appears to diverge from the *Preliminary Design Report*, which summarized that:

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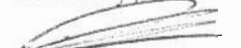
"Therefore site preparation would include compacting of existing metal dump, covering with granular material to provide a uniform surface and raise the level of permafrost above the existing contaminated site to seal in contaminants preventing further leaching into the environment."

Whereas the proposal ruled out the need for an engineered liner system on the basis that raised permafrost would constitute an impermeable barrier preventing the migration of waste, on-site observations have pinpointed definite concerns. In this regards, both the added volume of runoff and the planned burn operations will likely impede the required encapsulation of the historic waste by permafrost. Furthermore, contrary to the *Preliminary Design Report* which stated that water collected from beyond the waste mass would be directed directly offsite, the current design channels uncontaminated water through the landfill via a drainage ditch dug at or below the level of the historic wastepile. Consequently, considering that several organic and inorganic substances have previously been found to be above Tier 1 or Tier 2 Dew Line Cleanup Criteria, the operations of the landfill facility expansion above a partially reclaimed source of contaminants could possibly imply the deposit of deleterious substances into fish bearing waters, contrary to Subsection 36(3) of the *Fisheries Act*.

Lastly, it must be emphasized that neither DFO, EC, nor INAC possess the authority to approve the establishment of a facility from which waste may enter waters; that jurisdiction rests with the Nunavut Water Board (NWB). While it is acknowledged that the status of the City's Water licence lies to a large extent beyond its control, the City nevertheless cannot absolve itself from diligent water management and environmental protection practices. As such, the City cannot inaugurate a solid waste disposal facility without prior NWB approval.

Therefore, in light of its implied potential for the deposit of waste and/or deleterious substances into water, the as-built landfill facility expansion is deemed unacceptable to the aforementioned federal departments. Accordingly, the City of Iqaluit is hereby requested to submit to the NWB the outline of improvements it intends to make to sediment control and water infiltration measures at the site of the proposed landfill expansion before it becomes an operational solid waste disposal facility. Indeed, should solid waste be disposed of at the proposed landfill without additional mitigation measures being previously implemented, waste and/or deleterious substances may be deposited in waters, in violation of Subsection 9(1) of the *Northwest Territories Waters Act*, and possibly clauses of other relevant legislation.

Sincerely,



Philippe Lavallée
Water Resources Officer
INAC, Nunavut District



Wade Comin
Enforcement Officer
EC, Northern Division



Ipeelee Itorcheak
Fishery Officer
DFO, Nunavut Area Office

c.c. - Nunavut Water Board, Gjoa Haven
- Dillon Consulting Ltd., Iqaluit (Gary Strong)