

# Nunavut Water Board Licence Amendment Application 3BM-CAP0207

Hamlet of Cape Dorset  
P-Lake Sewage Lagoon

EXHIBIT	9
EXAMINATION OF	
DATE	JAN 24/08
Karoline Schumann COURT REPORTER	
K	

Cape Dorset, NU  
January 23 - 24, 2008



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# INAC's Role in Municipal Water Licence Reviews

Responsibilities, mandate, and obligations:

- *DIAND Act*
- *Nunavut Land Claims Agreement*
- *Nunavut Water & Nunavut Surface Rights Tribunal Act*
- *Canadian Environmental Assessment Act*



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# Areas of Concern

- Licensee of Facility
- Design Criteria
- Geothermal Assessment
- Responsible Professional
- Operation and Maintenance Plan
- Contingency Plan
- Abandonment and Reclamation Plan



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# Licensee of Facility

INAC:

- assumes that the Hamlet of Cape Dorset is the licensee of the P-Lake Lagoon;
- enforces the terms & conditions of the licence;
- holds the licensee responsible for meeting the terms and conditions in the licence.



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# Design Criteria

- No wetland treatment in design
- Estimates of upstream flow rates,
- Overland flow
- annual volumes of effluent entering and exiting the lagoon,
- permafrost encroachment.



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# Geothermal Assessment

The Applicant Modelled:

- The Freezing of berms, especially downstream berm
- The frozen core conditions over time
- The ground temperatures of the lagoon foundations

INAC recommends that:

- ground temperatures in berms and downstream of lagoon be monitored to confirm the model results



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# Signed Drawings

The Application should:

- identify the recommendations implemented into construction
- provide As-built drawings, especially for the berms, liner, parallel canal

licensee should:

- identify the responsible professionals for design and construction
- provide signed As-built drawings within 90 days of amendment or construction, whichever is earlier



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# Operation and Maintenance Plan

INAC Proposes that the Board:

- Accept November 2007 Operation and Maintenance Manual with:
  - Updated Contacts list
- Request that the Manual be expanded to include a wastewater operation plan within 90 days of issuance:
  - maintenance of and access to Cell 1, or the old sewage lagoon system, to be used as an emergency sewage disposal site
  - long-term sludge management
  - a discharge criteria for decant



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# Contingency Planning

- current treatment system as contingency measures
- Provide risk assessment:
  - how often will the old lagoon be used;
  - Include volumes in annual report to the Board



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# Abandonment and Reclamation

Abandonment and Reclamation Plans:

- long term reclamation goals for the P-Lake Sewage Lagoon
- Other parts of the treatment system



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# Licence Amendment

- INAC recommends that the Nunavut Water Board approve the Hamlet of Cape Dorset's municipal licence amendment application:
- INAC suggests that the Board include some conditions to the Amendment



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# Conditions

- monitor and/or estimate seepage into and out of the lagoon and report the results in the annual report;
- monitor ground temperatures in the berms and downstream of the berms and verify the geo-thermal analysis, and report to the Board annually for 3 years;
- to confirm with Environment Canada and the INAC inspector the compliance point for lagoon releases and to inform the Board;
- to provide “as built” drawings within 90 days of issuance of the amendment; and
- to provide an wastewater operation plan to the Board within 90 days of the amendment, including a long-term sludge management and a discharge criteria.



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# Next Steps

- Licence renewal
- Reclamation of the 3-tiered lagoons
- Additional treatment by lake and wetland below the P-Lake lagoon
- Monitoring & Reporting to the Board



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Thank you



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