

From: [Angela Plautz - MVLWB](#)
To: permits@mvlwb.com
Subject: FW: City of YK - MV2009L3-0007 - Request for Comments on Arsenic Criteria
Date: Thursday, September 02, 2010 1:59:06 PM
Attachments: [09-01-10 - ENR Letter to Board - City of Yellowknife - MV2009L3-0007 - Request for Comments.docx](#)

Please file for Lynn.

From: Patrick Clancy [mailto:Patrick_Clancy@gov.nt.ca]
Sent: Thursday, September 02, 2010 1:27 PM
To: Amanda Gauthier - MVLWB; Anne Umpleby
Subject: FW: City of YK - MV2009L3-0007 - Request for Comments on Arsenic Criteria

Lynn is out of office so I'm forwarding....

From: Patrick Clancy
Sent: Thursday, September 02, 2010 1:24 PM
To: 'Lynn Carter - MVLWB'
Subject: City of YK - MV2009L3-0007 - Request for Comments on Arsenic Criteria

Hi,

Please find attached ENR's comment on the subject request.

Thank you,

Patrick Clancy
Environmental Regulatory Analyst
Environmental Assessment and Monitoring
Environment and Natural Resources
GNWT
Work: (867) 920-6591
Fax: (867) 873-4021

September 1, 2010

Lynn Carter
Regulatory Officer
Mackenzie Valley Land and Water Board
7th Floor – 4910 50th Avenue
P.O. Box 2130
Yellowknife, NT
X1A 2P6

Dear Ms. Carter,

**Re: City of Yellowknife
Water Licence - MV2009L3-0007
Arsenic Criteria for Water Discharged from Biotreatment Pad Lagoon
Request for Review and Comments**

The Department of Environment and Natural Resources (ENR) has reviewed the above noted project based on its mandated responsibilities under the *Environmental Protection Act*, the *Forest Management Act*, the *Forest Protection Act* and the *Wildlife Act* and provides the following comments and recommendations for consideration by the Board.

ENR understands that the City of Yellowknife (City) proposes to raise the arsenic criterion for treated water from the biotreatment pad from 25 µg/L to 340 µg/L based on the rationale that there is high natural background levels of arsenic in the area. Although ENR does not oppose to the criterion being changed, it does not support the proposed criterion of 340 µg/L, nor the rationale provided to support the proposed new criterion. ENR offers the following comments for consideration:

- Does the City have background water data (surface and/or groundwater) from the area to demonstrate elevated levels of arsenic are naturally occurring? If so, please provide the arsenic concentrations and a comparison with the numbers that are currently measured at the biotreatment pad lagoon. If the City does not have the background water data, please see ENR Recommendations below.
- ENR understands that there are four surface SNP stations (SNP stations 0032-13 to 0032-16) situated at the solid waste facility. These stations were installed to

*“monitor water quality associated with the runoff and seepage from the solid waste facility”*¹. As part of the total metal scan, arsenic concentrations have been measured. Please provide the arsenic concentrations at these stations over the years and a comparison with the numbers that are currently measured at the biotreatment pad lagoon.

- What other disposal options has the City considered for the treated water?

Based on the above comments, ENR recommends the following:

1. Obtain background arsenic concentrations in surface water and/or groundwater for the area.
2. Obtain arsenic concentrations in surface water from the SNP stations 0032-13 to 0032-16.
3. Compare background arsenic concentrations with arsenic concentrations from the SNP stations and the biotreatment pad lagoon.
4. Develop an arsenic criterion that is reflective of the background levels and taking into consideration the levels of arsenic measured at the SNP stations and the biotreatment pad lagoon.

Comments and recommendations were provided by ENR technical experts in the Environment Division, Wildlife and Environment and the North Slave Region, and were coordinated and collated by the Environmental Assessment and Monitoring Section (EAM).

Should you have any questions or concerns regarding ENR’s comments and recommendations, please do not hesitate to contact me at (867) 920-6591 or patrick_clancy@gov.nt.ca.

Sincerely,



Patrick Clancy
Environmental Regulatory Analyst
Environmental Assessment and Monitoring
Department of Environment and Natural Resources

¹ City of Yellowknife Water Licence MV2009L3-0007. Page 16. June, 2010.