



**Mackenzie Valley Land and Water Board**  
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## Staff Report

<b>Applicant:</b> City of Yellowknife	
<b>Location:</b> Yellowknife, NT	<b>Application:</b> MV2009L3-0007
<b>Date Prepared:</b> February 20, 2014	<b>Meeting Date:</b> February 27, 2014
<b>Subject:</b> Request for a Modification to the Water Licence - Compost Facility Expansion	

### 1. Purpose/Report Summary

To present to the Mackenzie Valley Land and Water Board (MVLWB or the Board) the request from the City of Yellowknife (the City) for a modification to their Water Licence (WL) to expand the Centralized Compost Facility (CCF) located at the Solid Waste Facility (SWF).

### 2. Background

- May 31, 2010 – WL MV2009L3-0007 issued;
- January 3, 2014 – letter from the City requesting a modification to their WL for expansion of the CCF;
- January 22, 2014 – modification request sent for review;
- February 6, 2014 – reviewer comment deadline;
- February 13, 2014 – response to reviewer comments received from the City; change to modification request submitted by City and sent out for review;
- February 18, 2014 – deadline for reviewer comments on change to modification request;
- February 27, 2014 – presented to the Board;
- March 3, 2014 – 60 day timeline from date of document submission;
- May 31, 2022 – WL expiry date;

### 3. Discussion

The City's Water Licence (WL) states:

“**Modification**” means an alteration to a physical work that introduces a new structure or eliminates an existing structure and

does not alter the purpose or function of the work but does not include an expansion.

**“Waste Disposal Facilities”** mean all facilities designated for the disposal of Waste, and includes the Solid Waste Disposal Facilities, Sewage Disposal Facilities, and Bagged Toilet Wastes Disposal Facilities.

Part E of the WL contains conditions applying to modifications. Parts E.1 and E.2 state:

E.1 The Licensee may, without written approval from the Board, carry out Modifications to the Water Supply Facilities and Waste Disposal Facilities provided that such Modifications are consistent with the terms of this Licence and the following requirements are met:

- a) The Licensee has notified the Board in writing of such proposed Modifications at least 60 days prior to beginning the Modifications;
- b) Such Modifications do not place the Licensee in contravention of either the Licence or the Act;
- c) The Board has not, during the 60 days following notification of the proposed Modifications, informed the Licensee that review of the proposal will require more than 60 days; and
- d) The Board has not rejected the proposed Modifications.

E.2 Modifications for which all of the conditions referred to in Part E, item 1 have not been met, can be carried out only with written approval from the Board.

#### The modification request

The City would like to expand their composting program to serve more Yellowknife residents. The City has requested that the expansion of the CCF be deemed a modification. They state their reasons for the CCF expansion being a modification to be:

1. The expanded facility will be in a different location but will remain on the same site as the existing composting facility.
2. The same composting process, the same testing methods, and the same Operation and Maintenance manual that are currently in place will be used for the new facility.

The modification request (attached below) includes site plans and drawings, and the final report of the Yellowknife Centralized Composting Pilot Project (CCPP). The compost facility expansion is being planned in response to CCPP final report recommendations. The facility will consist of

a base pad, leachate containment system and wildlife control measures and will be located on the western end of the existing landfill area.

The City submitted a change to the proposed composition of the base pad on Feb. 13, 2014 (see attached letter). This change was circulated to reviewers for a brief review period.

The City is developing an operations and maintenance (O&M) plan specifically for the CCF and intends to submit it for review and approval 60 days prior to using the new facility.

The City has requested the addition of a Surveillance Network Program (SNP) station for the new leachate collection pond with sampling requirements matching those of station 0032-18, which is the monitoring point for the existing compost facility.

#### Status of the Interim Closure and Reclamation Plan (ICRP)

Part F of the WL contains conditions applying to closure and reclamation. Part F.1 states:

F.1 The Licensee shall submit to the Board for approval an Interim Closure and Reclamation plan for the Solid Waste Disposal Facilities at least 6 months prior to closure of the current solid waste disposal cell. The Plan shall include, but not be limited to, the information as set in Schedule 3, Item 1, included in this Licence.

The City began using a new landfill cell Nov. 1, 2011. In response to a request from the Board, the City provided a timeline for the submission of an ICRP for the existing landfill cell in a [letter dated Dec. 5, 2012](#). No ICRP has been submitted, however in a meeting of interested parties on October 9, 2013 the City committed to submission of an ICRP by March 31, 2014.

The City considers the construction of the CCF to be part of the overall closure plan for the existing landfill site.

#### **4. Review Comments**

Reviewer comments were received from the Aboriginal and Northern Development Canada (AANDC) Inspector and Fisheries and Oceans Canada (DFO). A no comment letter was received from Environment and Natural Resources. No additional comments were received on the change submitted by the City on February 13, 2014. Please see the attached comment summary table.

Comments from the Inspector focussed on how the base of the CCF would tie in with the cover for the remainder of the existing landfill cell, as well as monitoring and maintenance of this base. The City responded that this information would be included in a CCF O&M plan.

## **5. Security**

N/A

## **6. Conclusion**

The City has requested a modification to expand and relocate the CCF within the SWF. The SWF is considered to be a Waste Disposal Facility as per the WL definition.

There will be no change to the footprint or function of the SWF; rather the CCF, a component of the SWF, will be changed to better serve its intended purpose. Therefore the requested change does not alter the SWF as a whole and appears to fit the Modification definition in the WL.

While the construction of the CCF on the existing landfill cell is considered by the City to be part of the closure plan for this landfill cell, without an ICRP it is not possible to determine how this component will fit in with the overall closure plan.

As part of the modification request, the City requested a new Surveillance Network Program (SNP) station to test leachate at the CCF. The SNP could be updated if the Board approves the modification request.

## **7. Recommendation**

The Board has 60 days following notification of the proposed Modifications to inform the Licensee that review of the proposal will require more than 60 days. The 60 day deadline falls on March 3, 2014. Board staff has prepared the following options for consideration regarding the City's modification request:

1. Grant the City's request for a modification; or
2. Inform the City that the review of the proposal will require more than 60 days to accommodate the receipt and subsequent review of the ICRP for the existing landfill cell; or
3. Deny the City's request for a modification and direct the City to apply to amend their WL; or
4. Take any other option the Board identifies.

The draft approval letter includes the following:

- The City is directed to submit an O&M Plan for the CCF a minimum of 60 days prior to initial use of the facility. Approval for this Plan should be obtained before the facility is used; and
- The SNP has been updated to include station 0032-18A to monitor the expanded CCF with sampling requirements matching those of station 0032-18.

## 8. Attachments

- [December 30, 2013 cover letter and modification request from the City](#) (letter was received Jan. 3, 2014)
- [February 13, 2014 letter from the City regarding the change to their modification request;](#)
- Comment summary table;
- Draft Surveillance Network Program with revisions to add Station 0032-18A;
- Draft approval letter;
- Draft letter extending the review period; and
- Draft denial letter.

Respectfully submitted,



Miki Ehrlich  
Regulatory Officer

## Review Comment Table

<b>Board:</b>	MVLWB										
<b>Review Item:</b>	MV2009L3-0007 - City of Yk - Modification - Compost Facility Expansion										
<b>File(s):</b>	<a href="#">MV2009L3-0007</a>										
<b>Proponent:</b>	City of Yellowknife										
<b>Document(s):</b>	<a href="#">MV2009L3-0007 - City of Yk - Modification request for expansion of the Centralized Compost Facility (7 MB)</a> <a href="#">MV2009L3-0007 - City of Yk - Change to modification request (Feb. 13, 2014) (130 KB)</a>										
<b>Item For Review Distributed On:</b>	Jan 22 at 14:33 <a href="#">Distribution List</a>										
<b>Reviewer Comments Due By:</b>	Feb 6, 2014										
<b>Proponent Responses Due By:</b>	Feb 13, 2014										
<b>Item Description:</b>	<p>The City of Yellowknife has submitted a request for a modification to the City's Water Licence for the expansion of the Centralized Compost Facility located at the Solid Waste Facility. Please submit comments using the online review system by February 10, 2014.</p> <p>Please note: To reduce download time for the document, right-click on the file link and choose "Save link as..." to save the file directly to your computer.</p>										
<b>General Reviewer Information:</b>	<p>In addition to the email distribution list, the following organizations received review materials by fax:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Fort Resolution Métis Council</td> <td style="width: 20%;">Trudy King</td> <td style="width: 20%;"></td> <td style="width: 30%;">(867)394-3322; <a href="mailto:Fieldworker.frmc53@northwestel.net">Fieldworker.frmc53@northwestel.net</a>;</td> </tr> <tr> <td>Hay River Metis Council</td> <td>Wally Shuman</td> <td>President</td> <td>(867)874-4472;</td> </tr> </table>			Fort Resolution Métis Council	Trudy King		(867)394-3322; <a href="mailto:Fieldworker.frmc53@northwestel.net">Fieldworker.frmc53@northwestel.net</a> ;	Hay River Metis Council	Wally Shuman	President	(867)874-4472;
Fort Resolution Métis Council	Trudy King		(867)394-3322; <a href="mailto:Fieldworker.frmc53@northwestel.net">Fieldworker.frmc53@northwestel.net</a> ;								
Hay River Metis Council	Wally Shuman	President	(867)874-4472;								

			<a href="mailto:hrmc@northwestel.net">hrmc@northwestel.net</a> ;
	NWT Metis Nation	Tim Heron	NWTMN IMA Coordinator  (867)872-2772; <a href="mailto:rcc.nwtmn@northwestel.net">rcc.nwtmn@northwestel.net</a> ;
	Smith Landing First Nation	Andrew Wanderingspirit	Chief  (867)872-5154; <a href="mailto:chief@slfn196.com">chief@slfn196.com</a> ;
<b>Contact Information:</b>	Miki Ehrlich 867-766-7469 Rebecca Chouinard 867-766-7459		

## Comment Summary

AANDC: Nahum Lee				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Response
1	General	<p><b>Comment</b> Request for modification was reviewed and the design for the new composting facility appears sound. However, in the Inspector's opinion, there is insufficient information regarding how the compost facility base will be tied into the cover chosen for the remainder of the historic landfill cell. Details regarding monitoring and maintenance of the asphalt pad (ie. repairs of cracks, heaves or subsidence etc) were also lacking.</p> <p><b>Recommendation</b> At a minimum,</p>	<p><b>Feb 13:</b> This modification request was solely for the expansion of the compost facility. The issues regarding the tie in of the compost facility and the landfill cover is more relevant for the closure of the old landfill cell. As such, it will be discussed in greater detail in the Solid Waste Disposal Facilities Closure and Reclamation Plan as per Part F: Conditions Applying to Closure and Reclamation of the City's Water Licence. This Closure Plan is currently being worked on and will be submitted to the MVLWB sometime in the near</p>	<p>Proponent has committed to submission of the ICRP March 31, 2014. Proponent will be directed to submit an O&amp;M Plan for the CCF and that approval be obtained prior to operating the facility.</p>

		<p>the Licensee should provide details regarding the tie in of the new compost facility base to the proposed landfill cover and how this will be achieved. If the base of the facility is to be considered impermeable, documentation supporting the use of asphalt as an impermeable cover should be provided as well as a monitoring and maintenance schedule to detect and repair any potential damage to the asphalt cover must be provided.</p>	<p>future. In addition, the monitoring and maintenance of the base pad for the compost facility is an essential part of the O&amp;M protocol for the facility. This information will be included in the Compost Facility O&amp;M manual and all operators will be trained on a yearly basis. As well, the Compost Coordinator visits the site at least once a week and will note and address any visible problems regarding the pad.</p>	
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**Fisheries and Oceans Canada: Triage Group Fisheries Protection Program**

<b>ID</b>	<b>Topic</b>	<b>Reviewer Comment/Recommendation</b>	<b>Proponent Response</b>	<b>Board Staff Response</b>
1	DFO- Fisheries Protection Comments	<p><b>Comment</b> The Fisheries Act requires that projects avoid causing serious harm to fish unless authorized by the Minister of Fisheries and Oceans Canada. This applies to work being conducted in or near waterbodies that support fish that are part of or that support a commercial, recreational or Aboriginal fishery. Following measures to avoid harm will help you comply with the Act. It appears that the Compost Facility Expansion may result in increased water taking. Please view the DFO website for watertaking advice.</p> <p><b>Recommendation</b> Please visit the</p>	<p><b>Feb 13:</b> The initial plan for water used at the Compost Facility is that it will be trucked in from the City of Yellowknife's water supply and not from any of the nearby water bodies. As such, the slight increase in water use at the facility will have an inconsequential impact on overall water taking in the City. If there is any change to these plans in the future, the City will notify the MVLWB and undertake the appropriate measures to approve the water use. The self-assessment from the DFO website has been completed and no further review of the work is required.</p>	



		DFO website at <a href="http://www.dfo-mpo.gc.ca/habitat">www.dfo-mpo.gc.ca/habitat</a> and undertake a Self-Assessment to determine if DFO requires further review of the works.		
<b>GNWT - Environment and Natural Resources: Central Email GNWT</b>				
<b>ID</b>	<b>Topic</b>	<b>Reviewer Comment/Recommendation</b>	<b>Proponent Response</b>	<b>Board Staff Response</b>
1	General File	<b>Comment</b> ( <a href="#">doc</a> ) ENR No Comment on Compost Facility Expansion <b>Recommendation</b>		