



Mackenzie Valley Land and Water Board
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Staff Report

Applicant: Hamlet of Fort Liard	
Location: Fort Liard, NT	Application: MV2009L3-0025
Date Prepared: February 12, 2018	Meeting Date: February 22, 2018
Subject: Water Treatment Plant Operation and Maintenance Plan, Version 1	

1. Purpose/Report Summary

The purpose of this Report is to present to the Mackenzie Valley Land and Water Board (MVLWB/the Board) the Water Treatment Plant Operation and Maintenance Plan (Plan) Version 1, submitted by the Hamlet of Fort Liard (Hamlet), to fulfill Part I, condition 7 of municipal Water Licence MV2009L3-0025 (Licence).

2. Background

- March 1, 2010 – Issuance of Licence MV2009L3-0025;
- October 17, 2017 – Plan V1 received;
- October 26, 2017 – Review commenced;
- November 30, 2017 – Reviewer comments and recommendations due and received;
- December 14, 2017 – Responses received (ahead of December 19, 2017 deadline);
- **February 22, 2018 – Plan V1 presented to the Board for approval;** and
- February 29, 2020 – Expiration of Licence MV2009L3-0025.

3. Discussion

Licence Requirements and Background

Although some details regarding the operation and maintenance of the Hamlet’s Water Treatment Plant were provided with the application of Licence MV2009L3-0025, the Board required an updated Plan at issuance, in accordance with Part I, condition 7, as follows:

The Licensee shall, within six months of the issuance of this Licence, submit to the Board for approval, an updated plan for the operation and maintenance of the Water Supply Facilities.

The Board granted a two-month extension to a number of Licence requirements in 2010 (attached); however, the Hamlet had not previously submitted a Water Treatment Plant Operation and Maintenance Plan until October 17, 2017, when Plan Version 1 was submitted (attached). The Plan

follows the Board's *Operation and Maintenance Plan Template for Municipal Water Licences: Water Treatment Plant* (Template).

4. Comments

The Template was developed following the issuance of Licence MV2009L3-0025, so the Licence does not contain any specific requirements for the 'updated operation and maintenance plan for the Water Supply Facilities'. As such, Board staff have not completed a "plan completeness/adequacy" table.

5. Reviewer Comments

By November 30, 2017, comments and recommendations on the Plan (Version 1) were received from the following three reviewers:

- Acho Dene Koe First Nation (ADKFN);
- Environment and Climate Change Canada (ECCC); and
- Government of the Northwest Territories Department of Environment and Natural Resources (GNWT-ENR).

The Hamlet responded on December 14, 2017, ahead of the December 19, 2017 deadline. The Review Summary and Attachments (attached) presents the concerns identified through the review.

ECCC commented on the inclusion of SNP details in the Plan (Comment ID ECCC 2); Board staff note that these details are outlined in the SNP Annex of the Licence. Board staff further note that that descriptions and locations of each SNP station will be included on the SNP map that will be produced by Board staff for the Hamlet's use.

Additional reviewer comments requested that the Hamlet provide the following information:

- Location of SNP station 1478-7 on the map included with the Plan (Comment ID GNWT-ENR 1); and
- Revise Section 7 to state that sludge from the Water Treatment Plant is "discharged with backwash water and monitored in accordance with the requirements of the water licence for SNP 1478-7." (Comment ID GNWT-ENR 2).

6. Security

Not applicable.

7. Conclusion

Board staff conclude that further information was provided by the Hamlet in their responses to reviewer comments and suggest that the Plan Version 1 is largely in conformity with the requirements of Licence MV2009L3-0025.

Board staff conclude that the Hamlet could be reminded to include additional details in the next revision of the Plan (Version 2), which should be submitted with the next annual plan review, to fulfill Part B, condition 1 (annual reporting requirements) of the Licence and should use the revised *Operation and Maintenance Plan Template for Municipal Water Licences: Water Treatment Plant*.

8. Recommendation

Board staff **recommend the Board make a motion to approve** the Water Treatment Plant Operation and Maintenance Plan Version 1 as submitted, with associated Reasons for Decision.

Board staff recommend the Board require the Hamlet to include the following details in the next revision of the Plan (Version 2), which should be submitted with the next annual plan review, and use the revised *Operation and Maintenance Plan Template for Municipal Water Licences: Water Treatment Plant*:

- Include the location of SNP station 1478-7 on the map included with the Plan; and
- Revise Section 7 to state that sludge from the Water Treatment Plant is "discharged with backwash water and monitored in accordance with the requirements of the water licence for SNP 1478-7."

Board staff recommend including the following text in the decision letter:

- The Board notes and appreciates the Hamlet's recent efforts to submit outstanding Licence requirements.
- Board staff will provide the Hamlet with the revised *Operation and Maintenance Plan Template for Municipal Water Licences: Water Treatment Plan* template when it is available.
- The Hamlet shall adhere to the commitments made in their responses to reviewer comments dated December 14, 2017.

9. Attachments

- [Water Treatment Plant Operation and Maintenance Plan, Version 1](#)
- [July 29, 2010 Board approval of request to extend Water Licence Plan deadlines](#)
- Review Summary and Attachments
- Draft Reasons for Decision
- Draft Decision Letter from the Board

Respectfully submitted,



Erica Janes
Regulatory Specialist



Heather Scott
Technical Advisor

Review Comment Table

Board:	MVLWB
Review Item:	Hamlet of Fort Liard - Water Treatment Plant Operation and Maintenance Plan, Version 1.0 (MV2009L3-0025)
File(s):	MV2009L3-0025
Proponent:	Hamlet of Fort Liard
Document(s):	MV2009L3-0025 - Ft Liard - Water Treatment Plant OM Plan V1 - Oct17-17 (5.7 KB)
Item For Review Distributed On:	Oct 26 at 10:22 Distribution List
Reviewer Comments Due By:	Nov 30, 2017
Proponent Responses Due By:	Dec 19, 2017
Item Description:	<p>The Hamlet of Fort Liard has submitted a Water Treatment Plant Operation and Maintenance Plan (Version 1), in accordance with Part I, item 1 of their municipal Water Licence MV2009L3-0025. This Plan is for Board approval.</p> <p>Reviewers are invited to submit questions, comments and recommendations on the Water Treatment Plant Operation and Maintenance Plan by November 30, 2017.</p> <p>If you have questions or comments regarding this Plan or using the Online Review System, please contact Erica Janes at 867-766-7466 or ejanes@mvlwb.com.</p>
General Reviewer Information:	<p>In addition to the email distribution list, the following organizations received review material by fax:</p> <ul style="list-style-type: none"> • Fort Liard Metis Local #67: Ernie McLeod, President (867)770-4573; • Fort Simpson Métis Local: #52 Marie Lafferty, President (867)695-2040; • Hay River Metis Council: Trevor Beck, President (867)874-4472; and • Northwest Territory Métis Nation: Tim Heron, NWTMN IMA Coordinator (867)872-3586.
Contact Information:	<p>Erica Janes 867-766-7466 Heather Scott 867-766-7463 Jen Potten 867-766-7468</p>

Comment Summary

Acho Dene Koe First Nation: Julie Swinscoe				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
1	Hamlet of Fort Liard	<p>Comment (doc) The Hamlet of Fort Liard is Acho Dene Koe First Nation’s (ADKFN) principle settlement.</p> <p>Recommendation ADKFN acknowledges the submission of the O&M plans to the MVLWB for review under water licence MV2009L3-0025 and is submitting this referral response to inform the board that ADKFN will communicate directly with the Hamlet regarding the plans.</p>	Dec 14: n/a (No one from ADKFN has approached the Hamlet to date).	Noted.
Environment and Climate Change Canada: Emily Nichol				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
3	General File	<p>Comment (doc) ECCC Cover Letter</p> <p>Recommendation</p>	--	Noted.
1	Water Treatment Plant Sludge and Backwash Water; Water Treatment Plant Operation and Maintenance Plan	<p>Comment Section 7 (WTP Waste Production) of the Water Treatment Plant Operation & Maintenance Plan indicates that the Water Treatment Plant sludge and backwash water are discharged directly to a waterbody. Presumably, discharge is into the Liard River, which is located adjacent to the Water Treatment Plant (as per Site Location Plan, page 16). ECCC advises that, as per the Fisheries Act, any deposits to waters frequented by fish must be non-deleterious. The Water Treatment Plant Operation & Maintenance Plan should include</p>	Dec 14: If the MVLWB O&M Plan template included this information it would be helpful. see response to GNWT-ENR item 2 below.	Board staff note that the Hamlet discharges backwash and sludge together from the WTP. This discharge is monitored according to the criteria set out for SNP station 1478-7, as described in the Licence, and reported on in the Hamlet’s annual water licence reports, which can be found on the public registry.

		<p>appropriate monitoring and contingency measures to ensure that any deposits (e.g., Water Treatment Plant backwash water) to fish-bearing waters are non-deleterious. Water Treatment Plant sludge may be considered a deleterious substance and if so should not be disposed in fish-bearing waters.</p> <p>Recommendation ECCC recommends conducting appropriate sampling and analysis prior to discharging to fish-bearing waters. The Water Treatment Plant Operation & Maintenance Plan should be updated to include appropriate monitoring and contingency measures to ensure that any deposits (e.g., Water Treatment Plant backwash water) to fish-bearing waters are non-deleterious.</p>		
2	<p>Surveillance Network Program; Water Treatment Plant Operation and Maintenance Plan</p>	<p>Comment Surveillance Network Program details should be included in the Water Treatment Plant Operation & Maintenance Plan. This information is missing from the current plan.</p> <p>Recommendation ECCC recommends that the Water Treatment Plant Operation & Maintenance Plan be updated to provide information about the Surveillance Network Program (SNP), including (but not limited to) the following: - description and purpose of relevant SNP stations, - SNP monitoring requirements, - SNP sampling protocols and analytical methods, -</p>	<p>Dec 14: This appears to be a suggestion to the MVLWB about the template. The Hamlet agrees that information about SNP requirements that are included in the Water Licence could be repeated in the O&M Plan. The format developed by the MVLWB for Enterprise (that includes a map and tables) would be a good model to follow.</p>	<p>Board staff note that these details are outlined in the SNP Annex of the Licence, and are of the opinion that providing this information in the O&M Plan would be unnecessarily duplicative.</p> <p>Board staff also note that descriptions and locations of each SNP station will be included on the SNP map produced by Board staff for</p>

		applicable discharge/release criteria, and - map(s) of SNP stations.		the Hamlet's use, once all locations are approved by the Board.
GNWT - ENR: Central Email GNWT				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
3	General File	Comment (doc) ENR Letter with Comments and Recommendations Recommendation	--	Noted.
1	Topic 1: Map Indicating Location of SNP Monitoring Station 1478-7	Comment The Fort Liard Water Treatment Plant Operations and Maintenance Plan (WTP O&M Plan) provides a map, p. 16 of 21, illustrating the location of the facility. ENR notes that SNP monitoring station 1478-7 was established "To determine water quality of backwash discharge into the Liard River", as per Water Licence MV2009L3-0025. Recommendation 1) ENR recommends the location of SNP 1478-7 be specified on the WTP O&M Plan map.	Dec 14: see previous response	Board staff note that descriptions and locations of each SNP station will be included on the SNP map produced by Board staff for the Hamlet's use, once all locations are approved by the Board.
2	Topic 2: Sludge Mixed with Backwash	Comment The Hamlet clarified (Section 7) that sludge was discharged with backwash water, and that no WTP sludge data was currently available. ENR notes that results for SNP 1478-7 (backwash) were submitted to the MVLWB for September 2017. Recommendation 1) ENR recommends the WTP O&M Plan be revised to specify that results for backwash water, which incorporates any sludge that may be generated, are available and will be monitored under SNP 1478-7.	Dec 14: Sampling and analysis requirements are contained in the Hamlet's water licence. The note in Section 7 on page 9 (How is sludge disposed of?) can be amended to state "discharged with backwash water and monitored in accordance with the requirements of the water licence for SNP 1478-7". All testing results are submitted with Hamlet Annual Reports.	Acceptable response. The Hamlet should include this update in the next revision of the Plan.



Acho Dene Koe
— FIRST NATION —



Memorandum

To: Mike Rudkin (Senior Administrative Officer), Hamlet of Fort Liard
From: Julie Swinscoe, Project Director
c.c.: Boyd Clark, Operations Manager; Chief Gene Hope, Acho Dene Koe First Nation
Date: November 9, 2018
Re: Fort Liard O&M Plans Referral # MV2009L3-0025

The following Referral response is being submitted online via the MVLWB Online Review System on behalf of Acho Dene Koe First Nation.

1. Background

The Hamlet of Fort Liard has submitted its Operation and Management (O&M) Plans to the Mackenzie Valley Land and Water Board (MVLWB) to meet the requirements of the water licence MV2009L3-0025 as follows:

- O&M Plan for Solid Waste Disposal Facilities
- O&M Plan for Sewage Disposal Facilities
- O&M Plan for Water Treatment Plan, Spill Contingency Plan

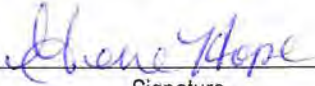
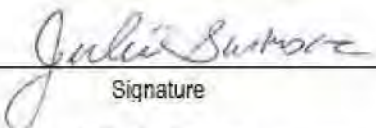
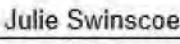

2. Response

2.1. General Comments

The Hamlet of Fort Liard is Acho Dene Koe First Nation's (ADKFN) principle settlement. ADKFN acknowledges the submission of the O&M plans to the MVLWB for review under water licence MV2009L3-0025 and is submitting this referral response to inform the board that ADKFN will communicate directly with the Hamlet regarding the plans.

3. Authorization

These recommendations were provided on behalf of Acho Dene Koe First Nation on the ___ day of November, 2017.

Acho Dene Koe First Nation	Landmark Resource Management
 _____ Signature	 _____ Signature
 _____ Name	 _____ Name
 _____ Title	 _____ Title



November 30, 2017

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

Dear Ms. Janes,

**Re: Hamlet of Fort Liard
Water Licence – MV2009L3-0025
Water Treatment Plant Operation and Maintenance Plan, Version 1.0
Request for Comments**

The Department of Environment and Natural Resources (ENR), Government of the Northwest Territories has reviewed the plan at reference based on its mandated responsibilities under the *Environmental Protection Act*, the *Forest Management Act*, the *Forest Protection Act*, the *Species at Risk (NWT) Act*, the *Waters Act* and the *Wildlife Act* and provides the following comments and recommendations for the consideration of the Board.

Topic 1: Map Indicating Location of SNP Monitoring Station 1478-7

Comment(s):

The Fort Liard Water Treatment Plant Operations and Maintenance Plan (WTP O&M Plan) provides a map, p. 16 of 21, illustrating the location of the facility.

ENR notes that SNP monitoring station 1478-7 was established “To determine water quality of backwash discharge into the Liard River”, as per Water Licence MV2009L3-0025.

Recommendation(s):

- 1) ENR recommends the location of SNP 1478-7 be specified on the WTP O&M Plan map.

Topic 2: Sludge Mixed with Backwash

Comment(s):

The Hamlet clarified (Section 7) that sludge was discharged with backwash water, and that no WTP sludge data was currently available.

ENR notes that results for SNP 1478-7 (backwash) were submitted to the MVLWB for September 2017.

Recommendation(s):

- 1) ENR recommends the WTP O&M Plan be revised to specify that results for backwash water, which incorporates any sludge that may be generated, are available and will be monitored under SNP 1478-7.

Comments and recommendations were provided by ENR technical experts in the Water Resources Division and the Dehcho Region and were coordinated and collated by the Environmental Assessment and Monitoring Section (EAM), Conservation, Assessment and Monitoring Division (CAM).

Should you have any questions or concerns, please do not hesitate to contact Patrick Clancy, Environmental Regulatory Analyst at (867) 767-9233 Ext: 53096 or email patrick.clancy@gov.nt.ca.

Sincerely,



Patrick Clancy
Environmental Regulatory Analyst
Environmental Assessment and Monitoring Section
Conservation, Assessment and Monitoring Division
Department of Environment and Natural Resources
Government of the Northwest Territories



Environmental Protection Operations Directorate
Prairie & Northern Region
5019 52nd Street, 4th Floor
P.O. Box 2310
Yellowknife, NT X1A 2P7

ECCC File: 5200 000 026/001
MVLWB File: MV2009L3-0025

November 30, 2017

Via Online Review System

Erica Janes
Regulatory Specialist
Mackenzie Valley Land and Water Board
P.O. Box 2130
Yellowknife, NT X1A 2P6

Dear Erica Janes:

RE: MV2009L3-0025 – Hamlet of Fort Liard – Water Treatment Plant Operation and Maintenance Plan, Version 1.0

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Mackenzie Valley Land and Water Board (MVLWB) regarding the above-mentioned plan and is submitting comments via the online review system as requested by the MVLWB. ECCC's specialist advice is provided based on our mandate, in the context of the *Canadian Environmental Protection Act*, the pollution prevention provisions of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

Should you require further information, please do not hesitate to contact me at (867)669-4732 or Emily.Nichol@canada.ca.

Sincerely,

[original signed by]

Emily Nichol
Environmental Assessment Coordinator

Attachment: ECCC's Comment Excel Sheet

cc: Bradley Summerfield, Senior Environmental Assessment Coordinator
Georgina Williston, Head, Environmental Assessment North (NT and NU)