



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

<b>Applicant:</b> Hamlet of Fort Liard	
<b>Location:</b> Fort Liard, NT	<b>Application:</b> MV2009L3-0025
<b>Date Prepared:</b> June 12, 2017	<b>Meeting Date:</b> June 22, 2017
<b>Subject:</b> 2016 Annual Water Licence Report	

**1. Purpose/Report Summary**

The purpose of this Report is to present to the Mackenzie Valley Land and Water Board (MVLWB/the Board) the 2016 Annual Water Licence Report (Annual Report) submitted by the Hamlet of Fort Liard (Hamlet), in accordance with Part B, item 1 of their municipal Water Licence MV2009L3-0025 (Licence).

**2. Background**

- March 1, 2010 – Issuance;
- March 8, 2017 – 2016 Annual Report received;
- April 3, 2017 – 2016 Annual Report distributed for review;
- May 9, 2017 – Reviewer comments and recommendations due and received;
- May 30, 2017 – Hamlet response deadline;
- May 31, 2017 – Extension to Hamlet’s response deadline granted;
- June 9, 2017 – Responses received;
- **June 22, 2017 – 2016 Annual Report presented to the Board;** and
- February 29, 2020 – Expiration.

**3. Discussion**

The Hamlet has submitted an Annual Water Licence Report for 2016 (attached), in accordance with Part B, item 1 and Surveillance Network Program (SNP) Part 4 of Licence MV2009L3-0025. This submission is not for Board approval; however, it is being presented as an update to the Board.

**4. Comments**

The Hamlet has generally shown diligence in the regular reporting required by their Licence. However, a number of Licence requirements remain outstanding, dating back to issuance (July 2015 correspondence attached). The Hamlet has indicated in the reviewer comment summary table (attached, see Comment ID MVLWB 3) that they plan to submit all outstanding Licence requirements by October 31, 2017.

## 5. Reviewer Comments

By May 9, 2017, comments and recommendations on the Annual Report were received from Environment and Climate Change Canada (ECCC), the Government of the Northwest Territories Department of Environment and Natural Resources (GWNT-ENR), and Board staff.

The Hamlet's response deadline was May 30, 2017. Board staff contacted Hamlet staff on May 31, 2017, at which point the Hamlet requested additional time to respond. Board staff agreed to extend the response deadline to June 9, 2017, and notified the distribution list accordingly. The Hamlet responded on June 9, 2017 by email; their comments were posted to the ORS by Board staff on June 12, 2017. The reviewer comment summary table presents the concerns identified through the review of the Annual Report.

Main focus areas of reviewer comments included the following:

### Sludge Management

Several of the reviewer comments focused on issues around sludge delineation and management at the sewage lagoon (Comment ID ECCC 1, GNWT-ENR 1 and 2). Board staff note that the Hamlet submitted a Lagoon Desludging Plan to the Board on May 5, 2017, which Board staff subsequently posted for review, and expect to bring to the Board in July. These reviewer comments have been addressed by this submission, and the Hamlet's plans to desludge Cell 3 of their sewage lagoon in August 2017.

### SNP sampling and station identification

Several reviewer comments raised the issue of unidentified SNP locations, and improvements to SNP reporting (Comment ID ECCC 3 and 4, MVLWB 2). Board staff can revise the Annual Report template provided to the Hamlet to incorporate a column that lists the effluent quality criteria (EQC) for station 1478-9, and to note that any exceedances should be highlighted by the Hamlet.

SNP locations highlighted in this review were:

1. Station 1478-6 (effluent from the Sewage Disposal Facilities following decant): the Hamlet stated that the location was identified at the end of 2016; the Board does not have a record of coordinates for this station. Board staff are of the opinion that the Hamlet should begin sampling this location in 2017 as per Licence requirements, and provide the coordinates of SNP 1478-6 to the Board in the 2017 Annual Report, along with all other SNP reporting.
2. Station 1478-7 (backwash discharge water from the water treatment plant): the Hamlet has pointed out that the sampling frequency specified in the Licence ('once during backwash') does not make sense given that backwash occurs on a daily basis. Board staff note that during the renewal of MV2009L3-0025, INAC recommended that backwash water be sampled prior to discharge and sampled for a basic suite of parameters including chlorine and metals (attached). The frequency of discharge was not identified in the application, and INAC recommended that the Hamlet provide this information to determine appropriate sampling frequency; there is no record of this information on the public registry. Board staff suggest that the Licence SNP can be updated to clarify that sampling at 1478-7 should be conducted quarterly during backwash operations of the greensand filter, and analysed for Total Metals. This will account for any possible seasonal fluctuations in the quality of the backwash from the greensand filter that removes metals from drinking water.

3. Station 1478-8 (location TBD in Licence, to monitor runoff from solid waste disposal site): this location has never been identified, and the Hamlet stated that this has not been raised in discussion with the Inspector. Board staff are of the opinion that the Hamlet should work to identify a location for SNP 1478-8 in 2017; work with an Inspector to formalize the location of this station in 2017, and ensure that the location and sampling results are reported on in the 2017 Annual Report.

#### Outstanding requirements

Board staff noted that the Hamlet has a number of outstanding submissions under MV2009L3-0025 (Comment ID MVLWB 3). The Hamlet responded that all outstanding Licence requirements will be submitted by October 31, 2017. The forthcoming submissions of operations and maintenance plans for Hamlet waste disposal facilities should address questions raised about sewage lagoon decant procedures (Comment ID ECCC 2), as well as the monitoring and management of runoff at the Solid Waste Disposal Facilities (Comment ID ECCC 4). Board staff noted that as this is a long list of outstanding requirements, the Hamlet should ensure they have chosen achievable deadlines. The Board may wish to encourage the Hamlet and their consultants to work with Board staff to ensure that submission requirements are being met. The Board may also wish to encourage the Hamlet to utilize the municipal templates provided for operations and maintenance plans, available on the Board's website.

#### **6. Security**

N/A

#### **7. Conclusion**

Annual Water Licence reports are not for Board approval; however, the Board may wish to follow up with the Hamlet based on the information provided in the Report and through the review process.

Board staff conclude that further information was provided by the Hamlet in their responses to reviewer comments; perhaps most importantly, the Hamlet has committed to submitting all outstanding Licence requirements by October 31, 2017.

#### **8. Recommendation**

Board staff recommend the Board accept the 2016 Annual Report, and have prepared a draft response letter (attached), with the following options for the Board's consideration. One or more of these options could be chosen to include in the Board's acceptance letter, to address the issues that have been identified:

1. The Board could inform the Hamlet that Board staff will revise the Annual Report template for MV2009L3-0025 to include EQC at SNP station 1478-9 for comparison to analytical results, and to note that any exceedances of EQC should be highlighted in annual reports. The revised template can be provided to the Hamlet by September 2017;
2. The Board could remind the Hamlet to begin sampling SNP station 1478-6 in 2017, as per Licence requirements, and request that the Hamlet submit coordinates for the location of SNP station 1478-6 along with sampling results, with the 2017 Annual Report (due March 31, 2018);
3. The Board could request that the Hamlet work to identify a location for SNP station 1478-8, and then work with an Inspector in 2017 to finalize the location, and ensure that the location and sampling results are reported on in the 2017 Annual Report;

4. The Board could note that the operations and maintenance plans should address reviewer comments related to sewage lagoon decant procedures and monitoring and management of runoff at the Solid Waste Disposal Facilities;

Board staff recommend the following administrative Licence update: Update the Licence SNP (Part 2, item b) to clarify that station 1478-7 shall be sampled 'quarterly during backwash operations of the greensand filter and analysed for Total Metals', rather than 'once during backwash' (see attached draft updated Licence).

Board staff recommend that the Board acknowledge the Hamlet's recent and planned work to meet the requirements of their Licence.

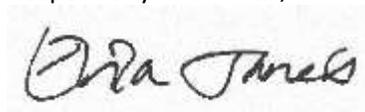
Board staff recommend including the following text in the decision letter:

- The Board notes that the Hamlet has committed to submitting numerous outstanding submissions by October 31, 2017; the Hamlet should ensure they have chosen achievable deadlines. The Board encourages the Hamlet and their consultants to work with Board staff to ensure that submission requirements are being met. The Board further encourages the Hamlet to utilize the municipal templates provided for operations and maintenance plans, available on the Board's website.
- The Hamlet shall adhere to the commitments made in their responses to reviewer comments dated June 12, 2017.

## 9. Attachments

- Reviewer Comment Summary Table
- [2016 Annual Water Licence Report](#)
- [July 2015 Hamlet/Board staff/Inspector correspondence regarding status of Plans](#)
- [January 21, 2010 Staff Report and Review Comment Table for Licence renewal](#)
- Draft Reasons for Decision
- Draft updated Licence MV2009L3-0025
- Draft Acceptance Letter from the Board

Respectfully submitted,



Erica Janes  
Regulatory Specialist



Heather Scott  
Technical Advisor

### Review Comment Table

<b>Board:</b>	MVLWB
<b>Review Item:</b>	Hamlet of Fort Liard - 2016 Annual Water Licence Report (MV2009L3-0025)
<b>File(s):</b>	<a href="#">MV2009L3-0025</a>
<b>Proponent:</b>	Hamlet of Fort Liard
<b>Document(s):</b>	<a href="#">MV2009L3-0025 - Hamlet of Ft Liard - 2016 Annual Water Licence Report - Mar8-17</a> (201.2KB)
<b>Item For Review Distributed On:</b>	Apr 3 at 11:11 <a href="#">Distribution List</a>
<b>Reviewer Comments Due By:</b>	May 9, 2017
<b>Proponent Responses Due By:</b>	June 9, 2017
<b>Item Description:</b>	<p>The Hamlet of Fort Liard has submitted their 2016 Annual Water Licence Report as per Part B, item 1 of their municipal Water Licence MV2009L3-0025. Although formal approval of Annual Reports is not required under the Licence, the Board must be satisfied that the Licensee has reported and performed sampling and analyses in accordance with the requirements of their Licence.</p> <p>Reviewers are invited to submit comments on the Hamlet's 2016 Annual Water Licence Report by <b>May 9, 2017</b>. Recommendations on the results reported, as well as recommendations that may assist the Hamlet in the development and completion of future Annual Reports, are welcome.</p> <p><b>May 31, 2017 Update</b> - the Hamlet of Fort Liard has requested additional time to respond to reviewer comments. The new comment response deadline is now June 9, 2017.</p> <p>If you have questions or comments regarding this review or the Online Review System, please contact Erica Janes at (867) 766-7466 or <a href="mailto:ejanes@mvlwb.com">ejanes@mvlwb.com</a>.</p>
<b>General Reviewer Information:</b>	<p>In addition to the email distribution list, the following organizations received review materials by fax:</p> <ul style="list-style-type: none"> <li>• Fort Liard Metis Local #67 - Ernie McLeod, President (867)770-4573;</li> <li>• Fort Simpson Métis Local #52 - Marie Lafferty, President (867)695-2040;</li> <li>• Hay River Metis Council - Trevor Beck, President (867)874-4472;</li> <li>• NWT Metis Nation - Tim Heron, NWTMN IMA Coordinator (867)872-3586.</li> </ul>
<b>Contact Information:</b>	<p>Erica Janes 867-766-7466  Heather Scott 867-766-7463  Jen Potten 867-766-7468</p>

## Comment Summary

Environment and Climate Change Canada: Emily Nichol				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
6	General File	<b>Comment</b> ( <a href="#">doc</a> ) ECCC Cover Letter <b>Recommendation</b>		Noted.
1	Sewage Effluent Quality Annual Water Licence Report #MV2009L3-0025	<p><b>Comment</b> The sewage effluent decanted during 2016 did not meet water licence effluent quality standards. The 2016 Annual Water Licence Report states that decanting was performed on two occasions during 2016 when the effluent level was approaching licence freeboard limit. Both of these decants were requested and approved as emergency decants due to samples exceeding water licence effluent quality standards. An estimated total volume of 13,500 m<sup>3</sup> was decanted (Page 7, Annual Water Licence Report). As per the 2016 Annual Water Licence Report, measures will be taken during 2017 to improve the effluent quality, including improving operations and conducting lagoon upgrades. An engineering team has been retained to draft a plan to correct problems within the lagoon structures and operations. Options may include dredging or expansion of the lagoon structure (Page 3, Annual Water Licence Report). ECCC supports taking measures to improve operations and lagoon performance, including appropriate sludge management.</p> <p><b>Recommendation</b> ECCC recommends that the Proponent determine sludge depth and volume, and conduct sludge management planning (including identifying disposal location and testing methods).</p>	<p><b>June 12:</b> Tests were performed by Dillon Consulting to determine sludge depth and corresponding volume. These tests took place during planning studies for work scheduled to take place during 2017. A Lagoon Desludging Plan has been submitted to MVLWB for approval to proceed with this work. Contained with-in this plan are sludge depth and volume totals for the 3 cells with-in the Fort Liard Sewage Treatment System. The plan submitted includes sludge removal plans with disposal location and planned testing according to CCME Guidelines for Compost Quality for land application.</p>	<p>Acceptable response.</p> <p>Board staff note that the Desludging Plan currently undergoing review specifically addresses sludge removal from Cell 3. When sludge is to be removed from the Sewage Disposal Facilities again, the Plan should be updated to reflect any changes to current sludge management practices.</p>

2	Sewage Effluent Decant Procedures Sewage Lagoons Section, Annual Water Licence Report #MV2009L3-0025	<p><b>Comment</b> The 2016 Annual Water Licence Report summary notes that lagoon #3 was pumped down to the "thick slurry of mud" [i.e., sludge] during a decant (Page 2, Annual Water Licence Report). This should be avoided, to prevent resuspension and discharge of settled sludge.</p> <p><b>Recommendation</b> ECCC recommends that the Proponent develop and implement procedures to ensure that settled sludge will not be re-suspended during decant, and/or discharged during decant operations.</p>	<p><b>June 12:</b> The Hamlet is working on updating procedures for sewage lagoon operations. On completion of work scheduled to take place on the lagoon facility during 2017, improved transfer and decant operational procedures will be implemented in attempts to avoid future incidents of this nature to take place.</p>	<p>Acceptable response.</p> <p>Board staff note that an Operations and Maintenance Plan for the Sewage Disposal Facilities has never been submitted to the Board for approval, under MV2009L3-0025. Board staff looks forward to the Hamlet's submission of this Plan on October 31, 2017 (as noted in Comment ID MVLWB 3), and notes that it should contain decant procedures.</p>
3	SNP Summary Tables B.1 d0 Tabular Summaries of all Surveillance Network Program Data, Annual Water Licence Report #MV2009L3-0025	<p><b>Comment</b> The summary table for SNP station 1478-9 (Wastewater sample from cell 3 of the Sewage Disposal Facility) does not include the water licence effluent quality standards (Page 11, Annual Water Licence Report). This information should be included for reference purposes, so effluent quality can be evaluated against water licence criteria. In addition, monitoring results that exceed the water licence effluent quality standards should be clearly identified in the summary tables.</p> <p><b>Recommendation</b> ECCC recommends that the Proponent include a column that lists the water licence effluent quality standards in the summary table for SNP station number 1478-9 (Wastewater sample from cell 3 of the Sewage Disposal Facility). ECCC</p>	<p><b>June 12:</b> Summary Table used for reporting data for Annual Water License Report by the Hamlet follows format supplied by MVLWB for Tabular Summaries of Surveillance Network Program Data.</p>	<p>Acceptable response.</p> <p>Board staff can update the Annual Report template for MV2009L3-0025 to include a column in the SNP reporting table that lists Licence EQC for station 1478-9, and to note that any exceedances should be highlighted.</p>

		recommends that the Proponent highlight or otherwise identify monitoring results that exceed the water licence effluent quality standards in the SNP summary tables.		
4	Solid Waste Management Location of Surveillance Station(s), Water Licence MV2009L3-0025 B.1 d0 Tabular Summaries of all Surveillance Network Program Data, Annual Water Licence Report #MV2009L3-0025	<p><b>Comment</b> The Surveillance Network Program lists SNP station number 1478-8 (Runoff from Solid Waste Disposal Facilities) as 'To Be Determined' (Page 11, Water Licence MV2009L3-0025). The 2016 summary table for SNP monitoring states that no location has been identified for this surveillance station (Page 11, Annual Water Licence Report). An additional solid waste site location is also listed, SNP station number 1478-10 (Sedimentation pond at new Solid Waste Facility), and the summary table for this location notes that no fluid has collected in the sedimentation pond (Page 11, Annual Water Licence Report).</p> <p><b>Recommendation</b> ECCC recommends that the Proponent monitor and manage runoff from both the old and new Solid Waste Disposal Facility sites; this should occur during operations and continue after closure. If there is no runoff or water accumulation, the Proponent should clearly indicate this.</p>	<p><b>June 12:</b> During January 2017, 7 monitoring wells were installed by MACA at locations around the closed and new Solid Waste sites. The Hamlet was informed that training and a schedule of times for obtaining samples from these monitoring wells will take place near the end of 2017. Data to be collected and tested, and the format for reporting the results has not been provided to the Hamlet at this time. Seasonal rain water, melting snow fall is ongoing and follows natural drainage course paths off the waste site into the surrounding environment. Runoff is controlled by ditching surrounding the waste site and monitoring of this runoff will be addressed with the Monitoring Wells recently installed by the GNWT.</p>	<p>Board staff note that an Operations and Maintenance Plan for the Solid Waste Disposal Facilities has never been submitted to the Board for approval, under MV2009L3-0025. Board staff looks forward to the Hamlet's submission of this Plan on October 31, 2017 (as noted in Comment ID MVLWB 3), and notes that it should contain details related to the control of runoff at the facilities.</p> <p>See analysis of Comment ID MVLWB 2 for details on SNP reporting.</p>
5	Solid Waste Management	<p><b>Comment</b> ECCC has recently released the planning and technical guidance document, Solid Waste Management for Northern and Remote Communities. The Proponent is encouraged to use the ECCC planning and technical guidance document to support responsible solid waste management. A summary and a link to the full document are available on</p>		Noted.

		Environment and Climate Change Canada's website at: http://www.ec.gc.ca/gdd-mw/default.asp?lang=En&n=97182135-1 <b>Recommendation</b> No recommendation, information is provided for Proponent's benefit.		
<b>GNWT - ENR: Central Email GNWT</b>				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
3	General File	<b>Comment</b> ( <a href="#">doc</a> ) ENR Letter with Comments and Recommendations <b>Recommendation</b>		Noted.
1	Topic 1: Water Licence Deficiencies	<b>Comment</b> The Hamlet of Fort Liard (the Hamlet) has historically experienced compliance issues regarding the water quality EQCs at the discharge for the Sewage Lagoon facility. ENR had recommended in its review of the 2015 Annual Report for the Hamlet initiate the process of desludging the Sewage Lagoon, including submitting to the MVLWB a Sludge Removal Plan for approval. The Hamlet has not yet submitted a Desludging Plan or complete desludging of the Sewage Lagoon in an attempt to alleviate some of the non-compliance waste discharges. <b>Recommendation</b> 1) ENR recommends the Hamlet explore options for desludging the Sewage Lagoon, including submitting to the MVLWB a Sludge Removal Plan for approval. ENR is aware of the operations and infrastructure improvements report prepared by Dillon (2015) and supports the recommendations that are presented. ENR encourages the Hamlet to implement the recommendations as soon as fiscally possible.	<b>June 12:</b> Plans have been submitted to MVLWB for approval to de-sludge lagoon 3 during work to be performed this summer, 2017.	Noted.
2	None	<b>Comment</b> None <b>Recommendation</b> 2) ENR recommends that any sludge removed from the lagoon should be properly managed and stored within a defined area. Once	<b>June 12:</b> Plans for the management and storage of the sludge are included with-in documents presented to MVLWB.	Noted.

		the material is completely dried and becomes suitable for mixing with granular material, it could potentially be used as landfill cover material.		
<b>MVLWB: Erica Janes</b>				
ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Staff Analysis
1	Planned Work	<p><b>Comment</b> In the report summary, the Hamlet refers to 'Construction of the next solid waste cell in the active Solid Waste area. being looked at for possible completion during 2017.'</p> <p><b>Recommendation</b> Board staff remind the Hamlet that as per Part H, items 1 and 3 of the Licence, the Hamlet needs to submit design reports, stamped by a qualified Engineer, to the Board for approval, prior to construction of any structures intended to withhold, divert or retain Wastes.</p>	<p><b>June 12:</b> Plans were submitted and approved by MVLWB in 2011 that included the installation of 6 solid waste cells within this area. The report summary was possibly not worded properly. The use of the word construction should not have been used. The Summary should more correctly have referred to the installation of the next in the series of 6 approved solid waste cells.</p>	<p>Board staff note that the plans the Hamlet refers to were submitted in 2010 as part of an amendment application to MV2009L3-0025, which comprised the design and construction of a new solid waste disposal site.</p>
2	SNP Reporting	<p><b>Comment</b> Board staff note that the Hamlet has not provided SNP data for stations 1478-6, 1478-7 and 1478-8. Board staff further note that stations 1478-6 and 1478-8 exact locations were to be determined with an Inspector, but that 1478-7 is clearly defined in the SNP annexed to the Licence.</p> <p><b>Recommendation</b> Please explain why SNP 1478-6 was not sampled during 2016, and provide details for plans to identify exact locations for 1478-6 and 1478-8 with an Inspector.</p>	<p><b>June 12:</b> Details or specifics for collection of samples from 1478-7 have never been provided. A challenge faced with the collection of samples for testing is the timing for collection. Softner system backwash is ongoing in daily operations along with weekly greensand filter backwash cycles. SNP 1478-6 probable location was not identified by the inspector until the end of 2016. No further information on exact location or testing requirements have been provided. SNP 1478-8 has not been raised in discussion or location identified by an Inspector</p>	<p>Board staff note that the SNP Annex (item 2a) to MV2009L3-0025 provides details for parameters to be sampled at 1478-7. Board staff understands the Hamlet's comment that the sampling frequency of 'once during backwash' does not make sense if backwash is occurring on a daily basis. Board staff can recommend to the Board to revise the</p>

			<p>in past site inspections, discussions or correspondence.</p>	<p>Licence SNP to clarify that station 1487-7 should be sampled quarterly at the greensand filter, and analysed for Total Metals. This will account for any possible seasonal fluctuations in the quality of the backwash from the greensand filter that removes metals from drinking water.</p> <p>Board staff further note that the Board has no record of the identification of a location for 1478-6. The Hamlet should begin sampling this location in 2017 as per Licence requirements, and provide the coordinates of SNP 1478-6 to the Board in the 2017 Annual Report, along with all other SNP reporting.</p> <p>The Hamlet should work to identify a location for SNP 1478-8 in 2017; work with an</p>
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				Inspector to formalize the location of this station in 2017, and ensure that the location and sampling results are reported on in the 2017 Annual Report.
3	Updates or revisions to Plans	<p><b>Comment</b> Board staff note that the Hamlet does not have approved submissions for the following Licence requirements: - D.10: Hazardous Waste Management Plan - D.12: Plan to monitor and regulate the volume of Sewage deposited by remote camp operators and liquid Waste haulers - F.1: revised Spill Contingency Plan - I.1: revised Operations and Maintenance Plans for Waste Disposal Facilities (sewage and solid waste) - I.7: revised Operations and Maintenance Plan for the Water Supply Facilities</p> <p><b>Recommendation</b> Please indicate when the Hamlet plans to submit the outstanding Licence requirements to the Board.</p>	<b>June 12:</b> The Hamlet will submit outstanding Licence requirements by October 31, 2017.	<p>Noted.</p> <p>Board staff note that as this is a long list of outstanding requirements, the Hamlet should ensure they have chosen achievable deadlines. The Hamlet and their consultants should be encouraged to work with Board staff to ensure that submission requirements are being met. Board staff look forward to receiving these outstanding submissions, and encourage the Hamlet to utilize the municipal templates provided for operations and maintenance plans, available on the Board's website.</p>



May 9, 2017

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

Dear Ms. Janes,

**Re: Hamlet of Fort Liard  
Water Licence – MV2009L3-0025  
2016 Water Licence Annual Report  
Request for Comments**

The Department of Environment and Natural Resources (ENR), Government of the Northwest Territories (GNWT) has reviewed the plans 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: Water Licence Deficiencies**

**Comment(s):**

The Hamlet of Fort Liard (the Hamlet) has historically experienced compliance issues regarding the water quality EQCs at the discharge for the Sewage Lagoon facility. ENR had recommended in its review of the 2015 Annual Report for the Hamlet initiate the process of desludging the Sewage Lagoon, including submitting to the MVLWB a Sludge Removal Plan for approval. The Hamlet has not yet submitted a Desludging Plan or complete desludging of the Sewage Lagoon in an attempt to alleviate some of the non-compliance waste discharges.

**Recommendation(s):**

- 1) ENR recommends the Hamlet explore options for desludging the Sewage Lagoon, including submitting to the MVLWB a Sludge Removal Plan for approval. ENR is aware of the operations and infrastructure improvements report prepared by Dillon (2015) and supports the recommendations that are presented. ENR encourages the Hamlet to implement the recommendations as soon as fiscally possible.
- 2) ENR recommends that any sludge removed from the lagoon should be properly managed and stored within a defined area. Once the material is completely dried and becomes suitable for mixing with granular material, it could potentially be used as landfill cover material.

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, 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](mailto:patrick.clancy@gov.nt.ca).

Sincerely,



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



Environment and  
Climate Change Canada

Environnement et  
Changement climatique Canada

Environmental Protection Operations Directorate (EPOD)  
Prairie & Northern Region (PNR)  
5019 52<sup>nd</sup> Street, 4<sup>th</sup> Floor  
P.O. Box 2310  
Yellowknife, NT X1A 2P7

May 9, 2017

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

Erica Janes  
Regulatory Specialist  
Mackenzie Valley Land and Water Board  
7<sup>th</sup> Floor, 4922 48<sup>th</sup> St.  
P.O. Box 2130  
Yellowknife, NT X1A 2P6

via online review system

**RE: MV2009L3-0025 – Hamlet of Fort Liard – 2016 Annual Water Licence Report**

Attention: Erica Janes

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Mackenzie Valley Land and Water Board regarding the above-mentioned annual water licence report and is submitting comments via the online review system. 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](mailto:Emily.Nichol@canada.ca)

Sincerely,

Emily Nichol  
Environmental Assessment Coordinator

Attachment: ECCC comments Excel Sheet

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