



Staff Report

Applicant: Town of Fort Smith	
Location: Fort Smith, NT	Application: MV2011L3-0001
Date Prepared: September 28, 2016	Meeting Date: October 5, 2016
Subject: Request for Surveillance Network Program Change	

1. Purpose/Report Summary

The purpose of this Report is to present to the Mackenzie Valley Land and Water Board (MVLWB/the Board) for approval, a requested change to the sampling frequency of Surveillance Network Program (SNP) station 567-6 for the Town of Fort Smith's (Town) municipal Water Licence (Licence) MV2011L3-0001.

2. Background

- November 1, 2011 – MV2011L3-0001 issued for 15 years;
- July 19, 2016 – Board staff meeting with Town and various Parties;
- July 28, 2016 – SNP change request submitted;
- August 31, 2016 – SNP change distributed for review;
- September 13, 2016 – Reviewer comments due;
- September 20, 2016 – Proponent response due;
- September 28, 2016 – Proponent submitted responses;
- **October 5, 2016 – SNP change request presented to the Board;** and
- October 31, 2026 – Water Licence expires.

3. Discussion

Background on SNP for MV2011L3-0001

Part D, items 13 and 14 of the Town's Licence required the submission of a Sewage Treatment Improvement Plan and Ammonia Discussion Paper, which was submitted to and approved by the Board on July 16, 2015. The Ammonia Discussion Paper illustrated that the current Sewage Disposal Facilities (SDF) meet the Effluent Quality Criteria (EQC) as per Part D, item 2 of the Licence. It also spoke to the fact that the Sewage Disposal Facilities meet the Wastewater System Effluent Regulations for un-ionized ammonia, although these Regulations have not been introduced in the NWT.

The Town was required to develop a Sewage Treatment Improvement Plan (Part D item 14), based on the results of the Ammonia Discussion Paper. This Plan was

submitted in September 2015. In it, the Town did not advance any particular option to improve wastewater treatment until such time as a comprehensive regulatory framework exists in the far north (see attached Staff Report of November 19, 2015). However, the Sewage Treatment Improvement Plan did state that in the interim, the Town is agreeable to implementing enhanced sampling and monitoring of the Slave River downstream of the treated wastewater discharge location, including incorporation of two additional SNP locations to monitor the receiving water body.

On November 19, 2015, the Board approved the addition of location 567-6 to the SNP, downstream of the Sewage Disposal Facilities, in order to monitor the receiving environment of the Sewage Disposal Facilities (i.e. the Slave River) (see attached letter). The exact location of the station was determined collaboratively by the Government of the Northwest Territories Inspector and Town staff, to be approximately three (3) meters downstream from the outlet of the Sewage Disposal Facilities, with signage to be installed during summer 2016.

Meeting with Town and Parties

On July 19, 2016, a meeting with the Town, the Inspector and other interested parties was held in Fort Smith to discuss the development of a timeline for outstanding operational issues and outstanding submissions under MV2011L3-0001, as directed by the Board in their March 17, 2016 letter (attached).

Representatives from the Town of Fort Smith, Government of the Northwest Territories – Environment and Natural Resources (GNWT-ENR, including the Inspector) and Municipal and Community Affairs, Fort Smith Métis Nation, Fort Resolution Métis Council, Deninu K'ue First Nation, Hamlet of Fort Resolution, Environment and Climate Change Canada, and the MVLWB attended. The meeting provided a valuable opportunity to discuss and work through the Town's Licence requirements and outstanding issues with stakeholders in person. Board staff are of the opinion that the meeting was instrumental in assisting the Town to adhere to the requirements of their Licence, and community feedback strongly encouraged the continuation of this kind of dialogue.

Submission Description

Following the July 19, 2016 meeting, the Town submitted a letter on July 28, 2016 (attached), addressing a number of follow-up items, and requesting a revision to SNP 567-6. Specifically, the Town requested that:

“...this be revised to monthly "during open water only". This request is due to the hazards associated with sampling during the winter, spring break-up, and fall freezeup.”

4. Comments

The Town has submitted this request to change the frequency of sampling required for SNP 567-6 due to safety concerns resulting from the station being located on the Slave River.

5. Reviewer Comments

By September 13, 2016, comments and recommendations on the SNP change request were received from Environment and Climate Change Canada (ECCC) and GNWT-ENR.

The Town did not respond to reviewer comments by the September 20, 2016 deadline; however, they did submit responses on September 28, 2016 (by email, attached). The reviewer comment summary table (attached) presents the suggestions and concerns identified through the review of this requested SNP change.

In summary, reviewers were supportive of the SNP change request, and had additional suggestions. ECCC recommended that efforts be made to collect monthly winter samples, but only if and when it is safe to do so, to increase the knowledge of the winter receiving environment, when water quality may be different and lower aeration occurs (ECCC comment 2). GNWT-ENR supported the request to reduce sampling at SNP 567-6 to during open water only, but emphasized the importance of the Town collecting monthly compliance sampling data at SNP 567-2 (site of compliance), in order to effectively capture effluent characteristics and help assess compliance with the Licence (GNWT-ENR comment 1). GNWT-ENR further recommended that Town staff take field notes when conducting sampling to aid in tracking and determining trends in effluence quality at SNP 567-2 (GNWT-ENR comment 2).

Board staff are of the opinion that increasing knowledge of the winter receiving environment (ECCC comment 2) would be valuable, and that sampling monthly during safe ice conditions and during open water would facilitate this understanding.

6. Security

Not applicable.

7. Conclusion

In accordance with Board direction, the Town has demonstrated significant progress in submitting outstanding plans and reports required by their Licence.

Board staff conclude that there are no outstanding issues or concerns with the Town's request to change the sampling frequency of SNP station 567-6.

A draft revised Water Licence is attached.

8. Recommendation

Board staff recommend the Board approve the requested change to SNP station 567-6, and amend the Part B of the Licence SNP to require station 567-6 be sampled monthly during safe ice conditions and during open water.

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

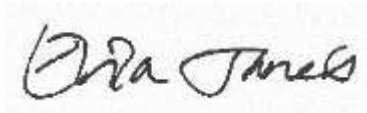
- The Board notes that the Town has demonstrated significant progress in submitting outstanding plans and reports required by their Licence.

- The Board reminds the Town to adhere to the SNP requirements listed in MV2011L3-0001 for each sampling station, and encourages Town staff to take field notes when sampling SNP stations to note any observations and pertinent information to aid in tracking and determining trends in effluent quality at SNP 567-2, including any rationale for missing a sample.

9. Attachments

- [November 19, 2015 Staff Report on Fort Smith Sewage Treatment Improvement Plan](#)
- [November 19, 2015 letter from Board to Town approving Sewage Treatment Improvement Plan and SNP addition](#)
- [March 17, 2016 letter from Board to Town](#)
- [July 28, 2016 letter from Town with SNP change request](#)
- [September 28, 2016 – Town’s late responses email](#)
- Reviewer Comment Summary Table
- Draft Decision Letter
- Draft revised Water Licence
- Water Licence cover page
- Draft Reasons for Decision

Respectfully submitted,



Erica Janes
Regulatory Officer

Review Comment Table

Board:	MVLWB
Review Item:	Town of Fort Smith “ Request for Surveillance Network Program (SNP) Change (MV2011L3-0001)
File(s):	MV2011L3-0001
Proponent:	Town of Fort Smith
Document(s):	MV2011L3-0001 - Ft Smith - Follow up from July 19 2016 Meeting - SNP Change Request - Jul28-16 (1MB)
Item For Review Distributed On:	Aug 31 at 14:52 Distribution List
Reviewer Comments Due By:	Sep 13, 2016
Proponent Responses Due By:	Sep 20, 2016
Item Description:	<p>The Town of Fort Smith has submitted a request to change the monitoring frequency of one of their SNP stations (SNP 567-6).</p> <p>SNP station 567-6 was added to the Town’s Water Licence in November 2015, to monitor the receiving environment of the Sewage Disposal Facilities (lagoon). The location of this station was determined in cooperation with the Inspector, and is approximately three (3) metres downstream from the outlet of the Sewage Disposal Facilities, in the Slave River.</p> <p>According to the Licence, the Town is required to sample SNP 567-6 monthly. The Town is requesting that this requirement be revised to sampling monthly during open water only, because of the hazards associated with sampling during winter, spring break-up, and fall freeze-up.</p> <p>Reviewers are invited to submit comments and recommendations on this request by September 13, 2016.</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 ejanes@mvlwb.com.</p>
General Reviewer Information:	<p>In addition to the email distribution list, the following organizations received review materials by fax:</p> <p>Fort Resolution Métis Council - Trudy King (867)394-3322 Hay River Metis Council - Trevor Beck, President (867)874-4472 NWT Metis Nation - Tim Heron, NWTMN IMA Coordinator (867)872-3586</p>
Contact Information:	<p>Erica Janes 867-766-7466 Heather Scott 867-766-7463 Jen Potten 867-766-7468</p>

Comment Summary

Environment and Climate Change Canada: Loretta Ransom

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Response
1	General File	Comment (doc) ECCC Cover Letter Recommendation		
2	Topic: SNP station 567-6 References: Type B Water Licence MV2011L3-0001; Summary Meeting Notes - July 19, 2016	Comment The Surveillance Network Program requires monthly sampling and analysis of SNP station 567-6, in order to monitor the receiving environment downstream from the outlet of the sewage disposal facilities (i.e., monitoring of Slave River). The Summary Meeting Notes (July 19, 2016; pages 3 and 4) note that SNP station 567-6 was added to verify mixing of effluent in Slave River and to provide additional data. Due to safety concerns, the Town of Fort Smith requests that sampling requirements for SNP 567-6 be revised to monthly during open water only. Recommendation ECCC recommends that efforts be made to collect monthly winter samples, but only if and when it is safe to do so. This would increase knowledge of the winter receiving environment, when water quality may be different and lower aeration occurs. Suggested SNP 567-6 sampling requirements: (1) monthly during open water, and (2) during the balance of the year, monthly only if and when it is safe to sample. Should it not be possible to collect monthly samples safely during spring break-up and fall freeze-up, suggested wording could be revised to: (1) monthly during open water, and (2) during winter, monthly only if and when it is safe to sample.		Noted.

GNWT - ENR: Central Email GNWT

ID	Topic	Reviewer Comment/Recommendation	Proponent Response	Board Response
1	General File	<p>Comment (doc) ENR Letter with Comments and Recommendations</p> <p>Recommendation</p>		
		<p>ENR notes that in the Annual Water Licence Reports recently submitted by the Town of Fort Smith, SNP samples were not collected at the compliance SNP Station 567-2 (the final effluent monitoring location before discharge into receiving environment) for the months of February 2014, August 2014, January and October 2015. This is a concern to ENR and it should be rectified.</p> <p>Regarding the change request to the SNP in winter, ENR respects that there are safety concerns associated with sampling during non-summer months with regard to sampling during winter; spring-break-up and fall freeze up at SNP Station 567-6, which is located 2 meters from the shore on the Slave River. However, for ENR to support the reduction in SNP sampling at SNP Station 567-6 in the Slave River, the Town needs to ensure compliance sampling of the upstream SNP location are collected monthly.</p> <p>If a sample is missed the Town is required to note why and include this information in the Annual Report. ENR also encourages Town Staff to take field notes when sampling at SNP 567-2. As per Licence Effluent Quality Criteria (EQC) for this station, samplers should note if any visible sheen observed for the Oil and Grease parameter</p>		Noted.

		<p>requirement. This parameter should be requested on the lab analysis request form as well. Any exceedences of Licence EQC at SNP Station 567-2 should be reported to the Inspector immediately.</p> <p>Recommendation(s):</p> <ol style="list-style-type: none"> 1) ENR supports the request to reduce SNP sampling at SNP Station 567-6 to during open water only. However, the Town must ensure SNP compliance sampling at SNP Station 567-2 is collected monthly to effectively capture effluent characteristics and help assess compliance with the Water Licence. 2) ENR recommends Town staff take field notes when sampling at SNP Station 567-2 to note any observations and pertinent information (e.g. Sampler ID, Date, Weather, Sample Colour, Visible Sheen, Weir Depth, etc.) This data would aid in tracking and determining trends in effluent quality at this site and would be important if any future exceedences with licence EQC for SNP Station 567-2 are noted. If a sample is missed, rationale for this omission should be included in field notes. This complied information can be easily referenced for use in the Annual Report as well. 		
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September 13, 2016

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: Town of Fort Smith
Water Licence – MV2011L3-0001
2013, 2014 and 2015 Annual Water Licence Reports
Request for Review and Comments**

The Department of Environment and Natural Resources (ENR), Government of the Northwest Territories (GNWT) has reviewed the information 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: Request to Change Monitoring Frequency at SNP Station 567-6

Comment(s):

ENR notes that in the Annual Water Licence Reports recently submitted by the Town of Fort Smith, SNP samples were not collected at the compliance SNP Station 567-2 (the final effluent monitoring location before discharge into receiving environment) for the months of February 2014, August 2014, January and October 2015. This is a concern to ENR and it should be rectified.

Regarding the change request to the SNP in winter, ENR respects that there are safety concerns associated with sampling during non-summer months with regard to sampling during winter; spring-break-up and fall freeze up at SNP Station 567-6, which is located 2 meters from the shore on the Slave River. However, for ENR to support the reduction in SNP sampling at SNP Station 567-6 in the Slave River, the Town needs to ensure compliance sampling of the upstream SNP location are collected monthly.

If a sample is missed the Town is required to note why and include this information in the Annual Report. ENR also encourages Town Staff to take field notes when sampling at SNP 567-2. As per Licence Effluent Quality Criteria (EQC) for this station, samplers should note if any visible sheen observed for the Oil and Grease parameter requirement. This parameter should be requested on the lab analysis request form as well. Any exceedences of Licence EQC at SNP Station 567-2 should be reported to the Inspector immediately.

Recommendation(s):

- 1) ENR supports the request to reduce SNP sampling at SNP Station 567-6 to during open water only. However, the Town must ensure SNP compliance sampling at SNP Station 567-2 is collected monthly to effectively capture effluent characteristics and help assess compliance with the Water Licence.
- 2) ENR recommends Town staff take field notes when sampling at SNP Station 567-2 to note any observations and pertinent information (e.g. Sampler ID, Date, Weather, Sample Colour, Visible Sheen, Weir Depth, etc.) This data would aid in tracking and determining trends in effluent quality at this site and would be important if any future exceedences with licence EQC for SNP Station 567-2 are noted. If a sample is missed, rationale for this omission should be included in field notes. This complied information can be easily referenced for use in the Annual Report as well.

Comment and recommendations were provided by ENR technical experts in the Water Resources Division and the South Slave Region and were coordinated and collated by the Environmental Impact Assessment 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.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Clancy', written in a cursive style.

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



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

September 13, 2016

EC File: 5200 000 042 /001
MVLWB File: MV2011L3-0001

Erica Janes, Regulatory Officer
Mackenzie Valley Land and Water Board
Box 2130, Yellowknife, NT X1A 2P6

Via online submission

RE: MV2011L3-0001 – Request for Surveillance Network Program (SNP) Change

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 request and is providing comments via the online submission as requested. 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) 669-4744 or loretta.ransom@canada.ca.

Sincerely,

Loretta Ransom
Senior Environmental Assessment Coordinator

cc: Georgina Williston, Head, Environmental Assessment North (NT and NU)