



# Sahtu Land and Water Board Staff Report

<b>Division:</b> Waters Program	<b>Report No. 1</b>
<b>Date Prepared:</b> January 28, 2021	<b>File No.</b> S20L3-003
<b>Meeting Date:</b> February 3, 2021	
<b>Subject:</b> Type B Water Licence Renewal Application, submitted by Charter Community of Fort Good Hope.	
<b>Project/Undertaking:</b> Use of water and deposit of waste for municipal operations at Fort Good Hope	

## 1. Purpose/Report Summary

The purpose of this Report is to provide Sahtu Land and Water Board information regarding the Water Licence Renewal Application of the Charter Community of Fort Good Hope. The report will discuss about the following:

- a) **Application for Renewal of Type B Water Licence S15L3-002** (Attachment 1);
- b) **Preliminary Screening Exemption and Preliminary Screening Report - October 2015** (Attachment 12);
- c) **Draft Terms and Conditions for the renewed Water Licence S20L3-003** (Attachment 13);
- d) **Waste Facilities Report** (Attachment 4);
- e) **Updated Spill Contingency Plan** (Attachment 5);
- f) **Updated Solid Waste Disposal Facility O and M Plan** (Attachment 6);
- g) **Updated Sewage Disposal Facility O and M Plan** (Attachment 7);
- h) **Updated Water Treatment Plant O and M Plan** (Attachment 8);
- i) **Hazardous Waste Manifest and Maintenance Action Plan** (Attachment 9);
- j) **Interim Closure and Reclamation Plan** (Attachment 10).

## 2. Background/ Process Requirements

- Oct 28, 2020 – **Renewal Application Received;**
- Nov 27, 2020 – **First Round of Public Review - Application distributed for review without draft Water Licence conditions:** Kasho Gotine Dist. distrib. list, SLWB (Number of Review Agencies: 38);
- Dec 15, 2020 - **Short Renewal of S15L3-002** to extend the expiry date until Feb 3, 2021;
- Jan 14, 2021 - **First Round of Public Review - Public Review Period extended till Jan 18, 2020 to allow expected comments from GNWT-ENR;**
- Jan 18, 2021 - **First Round of Public Review - Public Review Comments received;**

- Jan 19, 2021 – **Second Round of Public Review – Draft WL distributed for review;**
- Jan 25, 2021 – **Second Round of Public Review – Public Review End date;**
- Jan 25, 2021 - **Proponent Responses end date for the first Public Review item – not received**
- Jan 28, 2021 - **Proponent Responses received for first round of Public Review**
- Jan 28, 2021 - **Proponent Responses end date for second round of Public Review**
- Feb 3, 2021 - **Board Meeting Day.**

**Water Licence trigger:** A Type B WL is required as the project involves direct water use and deposit of waste for municipal purposes, and the off-stream storage of Water in the Community Reservoir with a maximum holding capacity of 35,940m<sup>3</sup>. Under the municipal licensing criteria of Schedule F, Column III, Items 1, 2(5), and 3(a) of the *Waters Regulations (WR)*, this activity is classified as a Type B Water Licence due to the following identified criteria:

- The use of 50 m<sup>3</sup> or more and less than 2,000 m<sup>3</sup> per day of water;
- The deposit of waste by means of sewage collection or treatment system serving a population of between 50 and 2,000; and
- The off-stream storage of a quantity of water greater than 2,500 m<sup>3</sup> and less than 60,000 m<sup>3</sup>, in this case a water storage reservoir.

**Sahtu Land Use Plan (SLUP) Conformity:** All community infrastructures are contained within the municipal boundary of Fort Good Hope; thus, the SLUP does not apply, as per Section 34 of Mackenzie Valley Resource Management Act (MVRMA).

#### **History of Fort Good Hope’s Water Licence:**

According to our public registry, the Northwest Territories Water Board had issued the first water licence to Fort Good Hope (effective from Jan 1991 to Dec 2000). S00L3-001 was the first municipal water licence of Fort Good Hope after the Sahtu Land and Water Board’s establishment. Thereafter, the water licence S00L3-001 had two renewals and the current application S20L3-003 is the third renewal of the same.

<b>Sl.No</b>	<b>Regulatory Board</b>	<b>WL No</b>	<b>Effective Date</b>	<b>Expiry Date</b>
1.	NWT Water Board	N3L4-1578	Jan 1, 1991	Dec 31, 2000
2.	SLWB	S00L3-001	Jul 23, 2004	Jan 26, 2010
3.	“	S09L3-002	Oct 28, 2010	Oct 27, 2015
4.	“	S15L3-002	Oct 28, 2015	Feb 3, 2021
5.	“	S20L3-003	This application	Board Decision awaited

#### **Risk Assessment and Record**

The following circumstances will assist the Board in assessing the performance and risk of adverse environmental impact from this applicant:

- inadequate SNP sampling implementation and lack of validation of groundwater wells;
- inconsistent diligence in addressing non-compliance concerns;
- Annual Reports submitted without SNP Data since S15L3-002 issuance;

- Submission of updated management plans and waste facilities report
- adequate water use records at the Water Treatment Facility.

### 3. Overview of the Municipal Undertaking

The Charter Community of K’asho Got’ine (Municipality of Fort Good Hope) is situated on a peninsula between Jackfish Creek and the east bank of the Mackenzie River in the Sahtu Region of the Northwest Territories (NWT) approximately 147 km northwest of Norman Wells and 316 km southeast of Inuvik. As published by the GNWT Bureau of Statistics, the 2018 population of K’asho Got’ine (Fort Good Hope) is 570 people with an average annual population growth of - 0.2%.<sup>1</sup>

#### **Water Source:**

Fort Good Hope’s primary water source is the Mackenzie River and the application indicates this will not change in the future.

#### **Water Usage:**

The current annual water usage is 16,100 cubic metres (ref- attachment 8). The volume of water usage is based on consumption, which is metered as water is pumped from the reservoir to the Water Treatment Plant, and again as it is distributed via truck to individual customers within the community. Water is currently pumped twice a year to the reservoir in April and October when water quality is best (i.e. turbidity low). Pumping is achieved by staging a large diesel powered pump, contained in a mobile skid mounted shack (pump shack), which is stored at the Municipal garage and pulled by a CAT C6 Dozer up the road to Rabbit Skin (Hare Indian) River, along the riverbank or on the ice during freeze-up. Water is pumped over land through a series of temporary piping lines.<sup>2</sup>

#### **Water Storage and Treatment:**

The community utilizes a single cell, lined reservoir built in 1979/80 to store water for municipal purposes. The July 2020 Inspection<sup>3</sup> found the reservoir in good condition. The earthen reservoir is shaped like an inverted pyramid with a width/length of 93 m x 93 m and a total depth of 6.5 m, of which 0.6 m is dead storage, 2.9 m is unusable, 1.8 m is allowed for ice and 1.2 m is allowed for freeboard.<sup>2</sup> The reservoir capacity is 20880 cubic metres (ref- Attachment 8).

The Water Treatment Plant was upgraded in 2013, providing the community with Class 1 level water treatment. Details of the treatment system were reported to the Board by Dillon Consulting in May 2012<sup>4</sup>. Pre-treatment distillation (gravity settling) is achieved while the waters are stored in the reservoir and when pumped to the WTP waters undergo membrane ultrafiltration. The Facility has deflocculating capacity however, based on current practices, this has

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<sup>1</sup> GNWT Bureau of Statistics: Fort Good Hope - Statistical Profile: [www.statsnwt.ca/community-data/Profile-PDF/Fort%20Good%20Hope.pdf](http://www.statsnwt.ca/community-data/Profile-PDF/Fort%20Good%20Hope.pdf), accessed on January 24, 2020.

<sup>2</sup> [S15L3-002 – Staff Report No.1 - Oct 2015](#)

<sup>3</sup> [S15L3-002 – Inspection Report \(GNWT-ENR\) – Jul 2020](#)

not been required. When a volume of 22,100L has passed through the membranes, a backwash process is initiated which results in approximately 1240L of wastewater generation while the filter membranes are cleaned. This process occurs approximately 6 times a day and results in approximately 5% unmetered water loss annually which is discharged to lands adjacent to the WTP (~210m<sup>3</sup>/month). The filtered water then undergoes disinfection via chlorination. There are 3 flow meters for raw, filtered and treated water and inline chlorine and total suspended solid (TSS) level monitoring with daily records maintained.

**Sewage Disposal Trench (Exfiltration Trench):**

Sewage is pumped from household septic tanks and deposited into the existing exfiltration trench which has been in service since 1980. The collection of sewage will continue to be done by vacuum truck, with vehicular upgrades as needed. De-sludging was performed about 7 years ago <sup>2</sup>. Annually approximately 12,000 m<sup>3</sup> of wastewater is desposited into the Exfiltration Trench each year (ref- attachment 7).

**Solid Wastes:**

All solid wastes will be deposited to the present Solid Waste Disposal Facility which has been in service since 1980 and is located approximately 2 km from town but within the Block Land Transfer<sup>2</sup>. The 2019 Annual WL Report estimated that the total volume of solid waste deposited was 3186.45 cubic metres.

The SWF consists of several areas located south of the facility entrance. These include areas for: hazardous waste, wood waste, construction waste, active/inactive household domestic waste, vehicles, snowmobiles, fuel tanks, other waste metal (ref-Figure 1.1, attachment 10). The current site has an area of approximately 45,000 m<sup>2</sup> not including the sewage disposal trench (SDT). The SDT adds another 5,000 m<sup>2</sup>. for a total of 50,000 m<sup>2</sup> (ref- attachment 10)

Hazardous wastes, such as car batteries and unidentified fluids are stored in a clay lined and bermed Hazardous Waste Storage area that was established in 2008. FGH is a registered receiver for Asbestos (1992) and a registered shipper of hazardous wastes under the Government of the Northwest Territories – Environment and Natural Resources (GNWT-ENR)<sup>2</sup>.

**Surveillance Network Program:**

SNP groundwater monitoring wells were established in 2018 as part of the current water licence S15L3-002 as per 2006 EarthTech Report: Sewage Treatment Study where it was recommended that a minimum of three groundwater monitoring wells be placed on the west side of the Waste Disposal Facility to monitor for potential contamination. The report also recommended that there be one well placed on the southeast side of the Waste Disposal Facility to provide background water quality monitoring <sup>2</sup>.

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<sup>4</sup> [S09L3-002 – Details of New Water Treatment Processes – Mar 2012](#)

### **Sampling and Reporting**

Annual Water Licence reporting has been outstanding for the majority of the term of the current WL; 2018 and 2019 WL Annual Report is submitted with this Application. SNP monitoring data must be submitted with Annual report. However, this is outstanding since the issuance of the current WL.

### **WL Compliance**

The **compliance history for S15L3-002** is discussed in the concordance table for submission of the current WL application documents prepared by Board Staff (Attachment 2). In brief, the compliance of Licensee was not satisfactory until they submitted the revised O and M Plans as part of this Renewal Application (ref-Attachment 1). Licensee never complied with the Surveillance Network Program (SNP) and the condition for revision of the same. Current SNP groundwater monitoring stations still need to be validated based on the Flow Pathway Study outstanding since 2016.

## **4. Program Components**

Charter Community of Fort Good Hope has submitted a Waste Facilities Report and updated municipal operation and maintenance plans along with the renewal application, in response to the Board Directives issued in May 2019 and July 2020 (ref - Attachment 1 and 2).

### **4.1 Waste Facilities Report (WFR)**

Waste Facilities Report provides information on the solid and sewage waste facilities at Fort Good Hope. They include Solid Waste Facility accepting hazardous and non-hazardous waste and Sewage Disposal Facility utilizing an exfiltration trench to process the wastewater.

Board staff notes: The Waste Facilities Report fulfills condition E.5 of WL S15L3-002. D.21 of S15L3-002 requires satisfactory maintenance of waste disposal facilities. Waste Facilities Report discusses about improving the solid waste management by

- a) **improving the waste sorting plan** (as part of compliance to condition of D.21 S15L3-002)
- b) **moving the honey bag disposal location** so that the run-off and drainage will drain into sewage disposal trenches (as part of compliance to condition of D.21 S15L3-002),
- c) **build two sewage pump-out stations for trucks** (as part of compliance to condition D.11 of S15L3-002),
- d) **implement the waste disposal fencing plan** (compliance to condition D.16 of S15L3-002),
- e) **posting signages** (compliance to condition B.11 of S15L3-002)
- f) **Installation of permanent method of measurement to monitor freeboard** of SDF exfiltration trench; explained in section 3.2.4 (compliance to condition D.3 of S15L3-002)

The WDF Fencing plan fulfills the S15L3-002 condition D.16, and it is expected to capture windswept waste, deterring wildlife and preventing unauthorized persons from entering the solid waste site. S15L3-002 Condition D.11 required maintenance of sewage disposal facilities and D.21 requires

satisfactory maintenance of waste disposal facilities. Inspection reports from July 2020 and May 2018 noted that state of sewage disposal facilities is unacceptable (ref- attachment 2). Section 3.2.3 and Figure 3-1 of WFR detail two proposed dumping stations to be installed. If proposed design is approved, the licensee will proceed with detailed procurement by spring 2021.

The Waste Facilities Report (WFR) along with the plans included in the report viz. **Proposed Fencing Plan, new waste sorting plan, design for proposed truck pump-out stations** (ref- attachment 4.1) may be approved by the Board. The new plans are already covered in the S15L3-002 conditions and PS Oct 2015. PS covers the activities “maintenance” and “construction” (ref- Attachment 12).

WFR requires revision as per the recommendations from public reviewers (see below and Attachment 11.1, review comment table).

#### Public review on WFR:

WFR must be revised based on the comments (ref-Attachment 11.1) as follows:

- ECCC (Comment ID 2) – WFR must discuss clearly on the management of hydrocarbon contaminated soil and ice, best practices to manage refrigerants, explain on criteria for acceptance of waste fuel tanks, best practices for managing asbestos and how the hazardous waste will be shipped out for final disposal.
- GNWT-ENR (Comment ID 10)- Improve Figure 2-1 to improve the image clarity.

GNWT ENR supports the Fencing Action Plan attached to WFR (Comment ID 4)

#### **4.2 Management Plans Spill Contingency Plan (SCP)**

The SCP (effective date Oct 27, 2020) was prepared using the template for “*Operation and Maintenance Plan for Municipal Water Licences: Spill Contingency Plan*” (MVLWB, March 2018). The plan was submitted in compliance with the requirement of a revised SCP as per S15L3-002 condition H.3.

SCP provides information on a) site and systems description, b) core SCP content like contact info and responsibilities, off site resources, emergency phone and radio locations, distribution and storage of SCP, community environmental policy, spill materials inventory, spill response flowchart, spill response action plan, inventory and training, c) Wastewater generation and conveyance and d) appendices: hazardous waste info., immediately reportable spill quantities and NT-NU spill report form.

Board staff notes: SCP is complete and satisfactory. As the community does not have an SAO currently, acting SAO’s name may be updated (optional). Board may direct the applicant/licensee to notify SLWB with contact information of new SAO and any new staff appointed for municipal operations, as soon as required.

Public review on SCP: No comments were received on SCP.

### 4.3 Solid Waste Disposal Facility (SWDF) O and M Plan

The SWDF O and M Plan (Oct 2020) was prepared using the template for “*Operation and Maintenance Plan for Municipal Water Licences: Solid Waste Disposal Facility*” (MVLWB, March 2018). The plan was submitted in compliance with the requirement of a revised SWDF O and M Plan as per S15L3-002 condition E.2.

Community of Fort Good Hope is not currently accepting waste from operations other than those businesses which are based inside the community.

Board staff notes: SWDF notes that the facility is registered to receive hazardous wastes. It also notes that the facility relies solely on natural attenuation of landfill leachate and there is no active leachate treatment. Section 5 “Facility Design” scaled site plan with air photo is provided instead of As-Built Drawings.

Applicant must provide complete information for the following sections of the O and M Plan:

- Section 5 -Facility design description
- Section 17- hazardous waste management “maximum quantity stored on site” and criteria to accept and manage hydrocarbon contaminated soil and ice
- Section 18 – Tipping Fees ( tipping fees are only for businesses)
- In general, descriptions must be given about management of each type of solid waste mentioned in the O and M Plan
- SWDF O and M Plan needs a major revision incorporating recommendations from the first round of public review by ECCC (ID 2) and GNWT-ENR (IDs 2, 3, 5, 9, 18, 19, 10, 20, 21, 27 and 28). The Plan must work as a proper workable document like a user manual for the municipal staff, especially when there is a high staff turn-over (the document must be useful for a new incoming staff).
- This SWDF O and M may be thoroughly discussed in a separate Board meeting and must be conditionally approved later with a separate set of Board directives. Based on the recommendations from the Board, Board Staff is organizing a meeting for all Sahtu municipalities (Tentative date Feb 24, Feb 25, 2021) to address the compliance issues and SWDF/ waste management including improving closure and reclamation plans. WL Compliance issues/challenges are mostly common for all Sahtu municipalities.

#### Public review summary on SWDF O and M Plan –

Public review resulted in major comments on SWDF O and M Plan and hence needs a major revision. The Plan must include a comprehensive list of waste accepted with the criteria for acceptance.

- Received a major comment (comment ID 2) from ECCC to revise SWDF O and M Plan. It must discuss clearly on the management of hydrocarbon contaminated soil and ice, best practices to manage refrigerants, explain on criteria for acceptance of waste fuel tanks, best practices for managing asbestos and how the hazardous waste will be shipped out for final disposal.
- 11 comments from GNWT ENR (Comment IDs 2, 3, 5, 9, 18, 19, 10, 20, 21, 27 and 28): ENR supports the honey bag relocation close to exfiltration trench area (ID2); Comment ID 5 ask

for clarity on criteria for accepting hazardous waste from commercial operators. Comment ID 9 asks the Applicant to submit the map references in section 5 of the SWDF O and M Plan.

#### **4.4 Sewage Disposal Facility (SDF) O and M Plan**

The SDF O and M Plan (Oct 2020) was prepared using the template for “*Operation and Maintenance Plan for Municipal Water Licences: Sewage Disposal Facilities*” (MVLWB, March 2018). The plan was submitted in compliance with the requirement of a revised SDF O and M Plan as per S15L3-002 condition E.3.

Board staff notes: SDF O and M Plan notes that background water quality at final sewage discharge point is not monitored.

Applicant must provide complete information for the following sections of the O and M Plan:

- Section 5- “MVLWB” must be replaced by “SLWB”.
- Section 8- Sludge management description
- Board may approve the plan with the following direction from GNWT-ENR

Public Review: One comment received from GNWT-ENR (Comment ID 12) advising the repair of sewage disposal area. Inspection reports from 2020 and 2018 showed land erosion and slumping in the SDF.

#### **4.5 Water Treatment Plant (WTP) O and M Plan**

The WTP O and M Plan (Oct 2020) was prepared using the template for “*Operation and Maintenance Plan for Municipal Water Licences: Water Treatment Plant*” (MVLWB, March 2018). The plan was submitted in compliance with the requirement of a revised WTP O and M Plan as per S15L3-002 condition E.4.

Board staff notes: Section 6 of WTP O and M Plan notes that the treatment facilities used: a) coagulation and flocculation, b) microfiltration and c) chlorination. It also notes that annual water storage is 16,100 m<sup>3</sup>/year. The waste membrane backwash is deposited on the land.

Applicant must provide complete information for the following sections of the O and M Plan:

- Section 5 -Average annual quantity of water drawn (m<sup>3</sup>/year)
- Section 5- check if the flow rate (of water source) is provided correctly
- Section 18 – Tipping Fees ( tipping fees are only for businesses)
- Board may approve the plan advising the above 3 minor revisions

Public review: No comments received on WTP O and M Plan.



#### 4.6 Hazardous Waste Manifest and Maintenance Action (HWMMA) Plan

Hazardous Waste Manifest and Maintenance Action Plan provides information on a) hazardous waste storage area overview including a figure for the location of hazardous waste storage at SWDF, b) collection and storage of hazardous waste, c) accepted and unaccepted wastes, d) hazardous waste inventory, e) spills management, f) maintenance and remediation and g) improvement plan.

Board staff notes: The plan provides necessary information and is satisfactory. Section 3 of the plan notes that the hazardous waste area is only partially bermed and integrity of the liner is unknown. It is not known whether contamination exists and below the surface of ground within the area. An SNP GW sampling location may be installed in the future as per Board's decision. Board may approve the plan with directions on improving the monitoring and maintenance of hazardous waste area (expand the berm cover and installation of SNP GW well).

Hazardous Waste Manifest and Maintenance Action (HWMMA) Plan may be revised as follows

- Applicant/Licensee may discuss clearly on the management of hydrocarbon contaminated soil and ice, best practices to manage refrigerants, explain on criteria for acceptance of waste fuel tanks, best practices for managing asbestos and how the hazardous waste will be shipped out for final disposal;
- Applicant/Licensee may discuss clearly on how the integrity of the liner will be monitored, how frequently such monitoring will be done;
- Applicant/Licensee may aim to achieve 100% berm/liner coverage of the hazardous waste area;
- Community may consider installing an SNP monitoring well after the flow pathway study, to monitor any leachate releasing into the environment from the hazardous waste storage facility.
- The licensee should specify how the vehicle wastes are handled on site.

Public review: No comments received on HWMMA Plan.

#### 4.7 Interim Closure and Reclamation Plan (ICRP)

ICRP was submitted in compliance with the requirement of a revised ICRP as per S15L3-002 condition I.1. There are presently no design guidelines for landfill closure in the Northwest Territories. Similar applicable guidelines (example: Closure Requirements for Solid Waste Facilities in Yukon) were used for reference.

It discusses a) general requirements for ICRP, b) facilities description and operation, c) conceptual site closure, d) post closure monitoring, e) implementation schedule, f) financing and reclamation costs.

Section 3 discusses **Conceptual Site Closure**. Management of non-hazardous waste (Section 3.1) will be done by: sorting, cleaning, crushing, recycling, removal of hazardous material, and burning.

Section 3.2 discusses management of hazardous waste

- Hazardous wastes should all be directed to the Hazardous Waste Storage Area (HWA). Wastes stored within this area will be removed for disposal by an accredited waste services provider prior to closure.

- Separate construction waste that is potentially Asbestos Containing Material (ACM) that is not otherwise already bagged or covered. Samples of the material will be collected by an approved professional and sent to an accredited laboratory for analysis.
- Identified ACMs and other materials that cannot be easily sorted, will be disposed of in a covered cell and applicable signage will be posted to identify that potential asbestos waste is present
- Materials with a leachable lead content below 5.0 mg/L can be disposed of in a covered cell at the SWF. Materials exceeding the leachability guideline will be shipped offsite for disposal.
- Compressed gas cylinders will be vented and crushed for recycling,
- Hazardous wastes including lead-acid batteries, glycols, Ozone Depleting Substances (ODSs), PCBs, and mercury will be transported offsite to an approved disposal facility.

#### Section 3.3 discusses Sewage Disposal Trench

If closure of the sewage disposal trench is deemed necessary, sampling of the accumulated sludge would be completed to confirm the absence of contaminated materials. If contaminated materials beyond the acceptable guidelines was discovered, the material would be removed and either treated through landfarm applications or used as backfill cover during the landfill closure.

#### Section 3.5 discusses Runoff Drainage Control

Surface runoff management includes site grading to minimize the ponding of water within and immediately adjacent to the operating areas of the SWF.

Board staff notes: Section 2.2 notes that the exfiltration trench is currently handling all of the waste from the community without evidence of flow constraints. Section 2.3 (waste generation and capacity) notes the Stantec’s recommendation for applicant/licensee to complete a reorganization and compaction campaign with SWF to optimize the currently available area and operations and to better understand remaining capacity. Board may also direct the licensee on the same.

Section 3.5 discusses the importance of Flow Pathway Study for drainage control. The Waste Disposal Flow Pathway Study can be used to identify surveillance network sampling points associated with the SWF. The drainage control measures may need to be updated based on the findings of the study.

As this is a conceptual closure reclamation plan the document may be approved with Board directions to incorporate improvement suggested by ECCC first round review comment ID 3 and ID4 in the next revision, as decided by the Board.

#### Public Review (Attachment 11.1):

- 2 comments (ID 3 and ID 4) from ECCC to improve ICRP, especially on the strategy to deal with excavation and treatment of contaminated soil; desludging and closure of exfiltration trench.

### **4.8 Pending Reports and Plans**

Board staff notes: Concordance table for submission of application documents prepared by Board Staff (Attachment 2) discusses on the compliance history. As per the table,

- SNP data is outstanding since 2015 and must be included with Annual Reports; SNP Revision outstanding since 2016 (current SNP stations have to be validated by Flow Pathway Study);
- S15L3-002 condition D.20 compliance involve submission of a “ Commercial and Industrial Operators Plan”. Based on the public review and on the discussion with peers from MVLWB and also referring to recently approved WL for Town of Hay River, this condition may be too challenging for this municipality; especially when no commercial waste is accepted from outside locations other than from those businesses who are based in FGH. Board staff already added two options for the renewed condition : 1) keeping the same condition from S15L3-002 and 2) suggestion to remove the S15L3-002 condition D.20 to include a condition to accept commercial waste and keep a log as per inspectors satisfaction/instruction.
- As built drawings for WTP and distribution facilities and temporary waste storage area. Applicant/licensee conveyed through application S20L3-003 cover letter that “drawings were not prepared at the time of construction. Due to current use of these facilities it would not be possible to prepare as-built drawings (ref- Attachment 1.1). The condition related to the same may be removed as per Board’s decision.

#### **4.9 Fees and Security**

Charter Community of Fort Good Hope paid \$30 as application fee. Municipal operations are exempt from paying water use fees and security.

#### **4.10 Term**

Charter Community of Fort Good Hope has applied for a term of ten years for the renewed water licence.

#### **4.11 Draft Water Licence**

Board Staff prepared the draft water licence: The draft WL S20L3-003 was prepared using the standard WL conditions, conditions transferred from S15L3-002 and Town of Hay River’s draft WL MV2019L3-0010 (for SNP groundwater monitoring criteria in the WL conditions). Please see Attachments 11.2 and 14 for details.

## **5. Summary of Public Review of the Applications**

The application and related documents underwent public review (in two rounds) between Nov 27, 2020, and Jan 25, 2021. Proponent responses deadline for the first round of review ended on Jan 25, 2021, but responses were received late on Jan 28, 2020 evening. Proponent Responses for second round of review (for water licence conditions) ended on Jan 28, 2020. (Attachment 11: 11.1 and 11.2)

#### **First round of public review:**

Distributed Application package and Renewal Application Concordance Table prepared by Board Staff. Of the 38 organizations (Kasho Gotine district distribution list) to which the application was distributed, 24 are represented within the Sahtu Settlement Area. (Attachment 11.1)

Review comments were received from:

- Government of the Northwest Territories – Environment and Natural Resources (**GNWT-ENR**): A total of 29 comments : recommending for specific training for municipal staff (ID 1, ID 5, ID 7, ID 8)); Solid Waste Disposal facility O and M Plan (IDs 2, 3, 5, 9, 18, 19, 10, 20, 21, 27 and 28), Sewage disposal – repair of facility (ID 12), Annual Report Compliance issues and suggestion to get support from GNWT-MACA for WL compliance (ID 5); SNP monitoring ( 15, 26).
- Environment and Climate Change Canada (**ECCC**): 5 comments: on WL term (ID1) (recommended 5 years only; Solid Waste Disposal facility O and M Plan (ID 2), Waste Facilities Report (ID2), SNP (ID 5)
- Fisheries and Oceans Canada (**DFO**): Advised applicant to submit request to review to DFO

Review comments received satisfactory responses from the Proponent. Proponent agreed to almost all the improvements suggested by the reviewers. Based on the review the Solid Waste Disposal Facility O and M Plan will need a major revision. Proponent has agreed to do a proposed Solid Waste Disposal Facility Optimization Plan to address the comments on SWDF. Proponent has requested for five more years of monitoring to enable the Flow Pathway Study.

### **Second round of public review:**

Distributed Draft Water Licence. Draft WL S20L3-002 was prepared using Standard WL conditions, conditions transferred from S15L3-002 and Town of Hay River's WL.

Of the 38 organizations (Kasho Gotine district distribution list) to which the application was distributed, 24 are represented within the Sahtu Settlement Area. Review comments were received from: GNWT-ENR to improve the draft WL. All the administrative changes are incorporated. Board staff recommends not to deal with other major changes at this time. (Attachment 11.2)

There were no unmitigable concerns raised in the public review.

## **6. Preliminary Environmental Screening Exemption**

Preliminary Screening (PS) from October 2015 prepared for S15L3-002 covers the impacts and mitigations for municipal operations as detailed in the Current WL Application S20L3-003. The **improvements** proposed in the Application are

- **Improving the waste sorting plan** (as part of compliance to condition of D.21 S15L3-002);
- **Moving the honey bag disposal location** so that the run-off and drainage will drain into sewage disposal trenches (as part of compliance to condition of D.21 S15L3-002);

- **Build two sewage pump-out stations for trucks** (as part of compliance to condition D.11 of S15L3-002). Also, activities “maintenance” and “construction” are screened in PS Oct 2015;
- **Implement the waste disposal fencing plan** (compliance to condition D.16 of S15L3-002);
- **Posting signages** (compliance to condition B.11 of S15L3-002);
- **Installation of permanent method of measurement to monitor freeboard** of SDF exfiltration trench; explained in section 3.2.4 (compliance to condition D.3 of S15L3-002).

These improvements do not result in impacts and mitigation measures that are not covered by the existing preliminary screening report from October 2015. The proposed development at the Solid Waste Disposal Facility (Fencing action Plan and truck mounting structure at exfiltration trench) meet conditions of the *Exemption List Regulations* of the *Mackenzie Valley Resource Management Act*, Schedule 1(2), Part 1, item 3(2) as *the proposed construction has a footprint smaller than 1000m<sup>2</sup> on land within the boundaries of local government; (a) will be carried out at a distance greater than 30 m from a water body; and (b) will not entail the deposit of waste into a water body*. Proposed Fencing Plan complies with Schedule 1(2), Part 1, item 7 of the the *Exemption List Regulations*: “*The construction of a fence where the construction will not entail the deposit of waste into a water body*”. Therefore, Preliminary Screening will be exempt for this Application.

## 7. Conclusions

Board staff acknowledge the commitment and progress made by the Proponent to improve compliance with the current WL during the renewal process and in response to the Board Directives in May 2019 and July 2020.

The Preliminary Screening Report from October 2015 (prepared for the S15L3-002 Application) covers all the new activities proposed in the S20L3-003 Application. The proposed development (S20L3-003) at the Solid Waste Disposal Facility viz. proposed Fencing Plan, improved waste sorting plan, and construction of two truck mounting structures at the exfiltration trench comply with the conditions of the *Exemption List Regulations* of the *Mackenzie Valley Resource Management Act*, Schedule 1(2), Part 1, item 3(2) and item 7 (ref- section 6 of this report). Therefore, Preliminary Screening will be exempt for this Application.

It may be noted that the two major commitments viz. Flow Pathway Study and SNP Revision expected to be carried out by the Proponent as per the existing water licence (S15L3-002) have not been maintained. Reviewers expressed specific concern regarding the Charter Community’s performance with continued non-compliance with the Surveillance Network Program monitoring requirements which has resulted in limited understanding of potential environmental impacts associated with the municipal disposal facilities which have been in service for 40 years. The Solid Waste Disposal Facility is reaching capacity limitations and insufficient detail has been provided to recommend approval to use the facility for a long period at this time (Applicant/licensee has requested a 10-year WL). Capacity of the solid waste site is to be assessed in 2021. As noted in GNWT-ENR Inspection Reports (July 2018 and July 2020) and by GNWR-ENR first round review comment ID 12, sewage disposal trenches show land erosion and slumping and therefore the applicant/licensee must proceed with repair/replacement as soon as feasibly possible. Performance at the Water Treatment Plant continues to meet Inspector expectations.

Based on the reporting and compliance performance record of the Charter Community during the term of the current WL and Reviewer concern (ref: ECCC comment ID 1 and ID2, first round of public review; suggested a 5-year WL term) of a 10-year term as requested by the Proponent, Board Staff recommend that a Water Licence for the Charter Community of Fort Good Hope be granted for a five-year term with Terms and Conditions as approved by the Board.

The Board Staff has prepared a draft Water Licence using MVLWB's standard WL Conditions, conditions carried forward from S15L3-002 and draft WL of Town of Hay River (MV2019L3-0010). The Proponent had expressed support of the Draft Terms and Conditions associated with this renewal application.

Draft Water Licence cover page, Draft Reasons for Decision and Draft Decision Letter are attached (Attachments 13, 15, 16).

## 8. Recommendations

Board staff recommend the Board proceed with the regulatory process for this Water Licence, including:

- 1) **Deem the renewal application exempt from Preliminary Screening (PS)** and approve the draft **SLWB Letter for PS Exemption**;
- 2) **Approve the draft Water Licence S20L3-003**, with a term as determined by the Board;
- 3) **Approve the proposed Fencing Plan** attached with the Waste Facilities Report;
- 4) **Accept the Waste Facilities Report** which discusses a new/improved waste sorting plan and design for proposed truck pump-out stations, with Board directions (ref- section 4.1 of this report);
- 5) **Approve the Spill Contingency Plan – Oct 2020**;
- 6) **Conditionally approve the Sewage Disposal Facility O and M Plan – Oct 2020** with revisions required as discussed in section 4.4 of this report;
- 7) **Conditionally approve Water Treatment Plant O and M Plan – Oct 2020** with minor revisions as discussed in section 4.5 of this report;
- 8) **Conditionally approve Hazardous Waste Manifest and Maintenance Action Plan – Oct 2020** with revisions required as discussed in section 4.6 of this report;
- 9) **Approve Interim Closure and Reclamation Plan– Oct 2020** with board directions for the next revision (ref-section 4.7 of this report);
- 10) **Approve the draft Reasons for Decision and draft Decision Letter** prepared for Board consideration.

The Board Staff recommends the Board not to approve the **Solid Waste Disposal Facility O and M Plan – Oct 2020** at this time, as major revisions are recommended by the reviewers (ref-section 4.3 of this report).

## 9. Attachments/References

- 9.1 Renewal Application
  - 9.1.1 Cover Letter ([hyperlink](#) only)

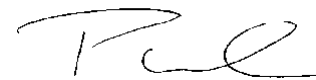
- 9.1.2 Renewal Application - S20L3-003 ([hyperlink](#) only)
- 9.1.3 Municipal Water Licence Questionnaire Application ([hyperlink](#) only)
- 9.2 Concordance table for Renewal Application documents (prep. by Board Staff)
- 9.3 Annual Reports Submitted
  - 9.3.1 AR 2018 ([hyperlink](#) only)
  - 9.3.2 AR 2019 ([hyperlink](#) only)
- 9.4 Waste Facilities Report ([hyperlink](#))
  - 9.4.1 Pages extracted from the Waste Facilities Report
- 9.5 Updated Spill Contingency Plan ([hyperlink](#))
- 9.6 Updated Solid Waste Disposal Facility O and M Plan ([hyperlink](#))
- 9.7 Updated Sewage Disposal Facility O and M Plan ([hyperlink](#))
- 9.8 Updated Water Treatment Plant O and M Plan ([hyperlink](#))
- 9.9 Hazardous Waste Manifest and Maintenance Action Plan ([hyperlink](#))
- 9.10 Interim Closure and Reclamation Plan ([hyperlink](#))
- 9.11 Review Comment Tables with attached letters
  - 9.11.1 Review Comment Table – First Round Review – with attached letter
  - 9.11.2 Review Comment Table – Second Round Review – with attached GNWT-ENR letter
- 9.12. Draft SLWB Letter- Preliminary Screening Exemption
  - 9.12.1 Preliminary Screening Report – October 2015
- 9.13 S20L3-003 - Draft Water Licence Cover Page
- 9.14 S20L3-003 Draft Water Licence Term and Conditions.
- 9.15 Draft Reasons for Decision
- 9.16. Draft Decision Letter

Respectfully submitted,



Aswathy Mary Varghese, PhD  
Regulatory Specialist

Executive Director Comments:



Paul Dixon  
Executive Director