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Reasons for Decision

Reference/File Number:	Type B Water Licence W2018L3-0001
Licensee:	Community Government of Gamètì
Subject:	Type B Water Licence Renewal

Decision from the Wek'èezhìi Land and Water Board Meeting of November 19, 2018

1.0 Decision

On November 19, 2018, the Wek'èezhìi Land and Water Board (the Board) met to consider a request by the Community Government of Gamètì (CGG) for the approval of a Type B Water Licence Application, and associated plans, to support its current municipal operations. After reviewing the submission of the Applicant, the written comments by the Board, having due regard to all the facts and circumstances, the merits of the submissions made to it, and to the purpose, scope, and intent of the *Mackenzie Valley Resource Management Act* (MVRMA) and the *Waters Act* and Regulations made thereunder, the Board has determined that Water Licence W2018L3-0001 be issued for a term of 10 years subject to the terms and conditions therein.

In addition to the decision above, the Board:

1. requires the CGG to evaluate the source of the elevated TSS levels, provide steps and a timeframe to address the elevated TSS levels, and to provide an update in their next Annual Report.
2. requires the CGG include the locations of the SNP stations on maps in future Operation and Management (O&M) Plan submissions, and to install a sign at each SNP station.
3. requires the CGG to update the version numbers and include a revision table for future O&M Plans or Spill Contingency Plans submitted to the Board under Part G, Condition 1 and Part H, Condition 1.
4. requires the CGG to submit, within 6 months of the issuance of this Licence, Version 3.0 of the Solid Waste Facility O&M Plan, which provides detail on how the CGG plans to assess the potential risks of the existing hydrocarbon-contaminated soils and to safely manage future hydrocarbon-contaminated soils.

5. requires the CGG to submit, within 3 months of the issuance of this Licence, Version 3.0 of the Sewage Disposal Facilities O&M Plan, to incorporate sludge management and include the 2guidelines that will be used to evaluate sludge quality and suitability for cover material.
6. requires the CGG to submit, within 6 months of the issuance of this Licence, Version 2.1 of the Spill Contingency Plan which address the following:
 - i. Update the locations of the emergency phones and/or radios;
 - ii. Update the locations of the facilities with copies of the Spill Contingency Plans;
 - iii. Provide a summary of the average Quantity Normally Onsite of Hazardous Materials listed in the plan;
 - iv. Provide a summary of the facilities that have spill kits, what is included in each spill kit, and the litres of spilled fuel/oil each spill kit is designed to collect and contain; and
 - v. Confirm that training records are being kept.
7. requires the CGG to submit as-built drawings, within ninety (90) days of the issuance of this Licence, for the Solid Waste Facility and the Sewage Disposal Facility, as per Part H, Condition 3 of the W2008L3-0003 Licence.

The Board's reasons for decision are set out below.

2.0 Background

The CGG's Water Licence¹ (W2008L3-0003) expires on December 22, 2018. To continue the municipal operations in Gamèti, involving direct water use and deposit of waste, a renewal is required. As per Schedule F, Column III, Item 3(a) of the Waters Regulations, the CGG's municipal operations trigger the requirement for a Type B Water Licence.²

On August 1, 2018, the CGG submitted a Type B Water Licence Application³ (the Application) to the Board. With the Application, the CGG included: a Water Licence Questionnaire (the Questionnaire),⁴ Spill Contingency Plan,⁵ and Operation and Maintenance (O&M) Plans for the Water Treatment Plant,⁶ Sewage Disposal Facility,⁷ and Solid Waste Facility.⁸ The Board has titled these documents Version 2.0, as they contain updated information since the last Spill Contingency Plan and O&M Plans were submitted.

The Application and supporting materials were distributed for public review on August 16, 2018 with reviewer comments due by September 13, 2018. Comments were received by Environment and Climate Change Canada (ECCC), Government of the Northwest Territories – Department of Environment and Natural Resources (GNWT-ENR), the Wek'èzhii Renewable Resources Board (WRRB). Board staff also

¹ See WLWB Registry for [W2008L3-0003 – Gamèti – Water Licence – Updated SNP – Aug 30 16](#)

² See WLWB Website, Acts and Regulations page for [Waters Regulations](#)

³ See WLWB Registry for [W2018L3-0001 – Gamèti – Water Licence Application – Aug 1 18](#)

⁴ See WLWB Registry for [W2018L3-0001 – Gamèti – Water Licence Questionnaire – Aug 1 18](#)

⁵ See WLWB Online Registry for [W2018L3-0001 – Operation and Maintenance Plan – Spill Contingency Plan – Aug 1 18](#)

⁶ See WLWB Online Registry for [W2018L3-0001 – Operation and Maintenance Plan – Water Treatment Plant – Aug 1 18](#)

⁷ See WLWB Online Registry for [W2018L3-0001 – Operation and Maintenance Plan – Sewage Disposal Facility – Aug 1 18](#)

⁸ See WLWB Online Registry for [W2018L3-0001 – Operation and Maintenance Plan – Solid Waste Facility – Aug 1 18](#)

submitted comments. Applicant responses were received on October 9, 2018, 13 days after the deadline of September 27, 2018. The Review Summary Table, including reviewer comments and proponent responses, is available on the WLWB Online Registry (See Review Summary and Attachments).⁹

3.0 Reasons for Recommendations

3.1 Exemption from Preliminary Screening

Schedule 1, Part 1, paragraph 2.1 of the Mackenzie Valley Resource Management Act Exemption List Regulations (Exemption List Regulations) states that an application can be exempt from preliminary screening if:

A development, or part thereof, for which renewal of a permit, licence or authorization is requested (a) has not been modified; and (b) has fulfilled the requirement of the environmental assessment process established by the *Mackenzie Valley Resource Management Act*, the *Canadian Environmental Assessment Act*, or the Environmental Assessment Review Process Guidelines Order.

A preliminary screening of Water Licence W2008L3-0003 was completed on December 18, 2008.¹⁰ It was determined that there was no likelihood that the proposed development might have a significant adverse impact on the environment or might be a cause of public concern.

The Board has reviewed the scope of the Application and have determined that it is not being expanded to include any activities beyond the scope of the W2008L3-0003. The Board believes that the renewal application is exempt from the Preliminary Screening as per the Exemption List Regulations.

3.2 General Principles for Water Licence W2018L3-0001

The scope, definitions, and conditions set forth in the Water Licence (Licence) have been developed in order to address the Board's statutory responsibilities and the concerns that arose during the public review process. In developing the Licence, changes were made to the previous Licence based on the following principles:

- To provide for the conservation, development, and utilization of land and water resources in a manner that will provide the optimum benefit generally for all Canadians, and in particular for residents of Wek'èezhii, as per section 58.1 of the MVRMA;
- To achieve consistency with policies and guidelines adopted by the Mackenzie Valley Land and Water Boards (MVLWBs);
- To update conditions to reflect the current status of activities in Gamètì;
- To update conditions to achieve consistency with existing municipal water licence conditions;
- To address any recommendations from reviewers and the proponent; and
- To ensure overall clarity of the Licence requirements.

⁹ See WLWB Online Registry for [W2018L3-0001 – Gamètì – Type B Renewal Application – Review Summary and Attachments – Oct 25 18](#)

¹⁰ See WLWB Registry for [W2008L3-0003 – Gamètì – Water Licence – Preliminary Screening – Dec 18 08](#)

In order to improve clarity, the overall structure of the Licence has been changed. Details related to all management plans and reports, referenced in the main body of the Licence, have been moved into the Schedules annexed to the Licence. The purpose of this change is to allow the reader to more easily locate provisions relating to specific plans and reports and align with the new format of other recently issued licences.

3.3 Determinations Relating to Water Licence W2018L3-0001

3.3.1 Requirements of Section 26 and 27 of the Waters Act

Existing Licensees

After reviewing the submissions made under the regulatory processes and filed on the WLWB Public Registry, the Board is satisfied that, with respect to paragraph 26(5)(a) of the *Waters Act*, the granting of this Licence to the Applicant will not adversely affect, in a significant way, any existing Licensee, provided the conditions of the Licence are adhered to. There are no other applicants with precedence.

Existing Water Users

Paragraph 25(5)(b) of the *Waters Act* prohibits the issuance of a Licence unless the Board is satisfied that appropriate compensation has been or will be paid by the Applicant to people who were, at the time when the Applicant filed its application with the Board, members of the classes of water users, depositors, owners, occupiers, or holders listed under paragraph 26(5)(b) of the *Waters Act* will be adversely by the use of Waters or the deposit of Waste proposed by the Applicant.

Water Quality Standards

Regarding subparagraph 26(5)(c)(i) of the *Waters Act*, the Board is of the view compliance with the Licence conditions will ensure that Waste produced by the Community of Gamèti will be treated and deposited in a manner that will maintain water quality consistent with applicable standards and the Boards' *Water and Effluent Quality Management Policy*.¹¹

Effluent Quality Standards

Consistent with subparagraphs 26(5)(c)(i) of the *Waters Act*, the Board is satisfied that the effluent standards it has set out in the Licence as conditions are consistent with the Boards' *Water and Effluent Quality Management Policy*¹² and will protect the receiving waters and environment. These are further discussed below.

Requirements of Subsection 27(2) of the Waters Act

The Board believes that compliance to the conditions of the Licence will ensure that any potential adverse impacts on other water users, which might arise as a result of the issuance of the Licence, will be minimized.

3.3.2 Requirements of Subsection 61 of the MVRMA

Pursuant to subsection 61(2) of the MVRMA, the Board may not issue a licence or permit except in accordance with any applicable land use plan. The Board acknowledges the Tlicho Land Use Plan but notes that the lands included in the scope of the Licence are within the boundaries of the community of Gamèti. Subsequently, the Board believes that the requirements of subsection 61(2) are met.

¹¹ See WLWB 'Policies and Guidelines' webpage for the [MVLWB Water and Effluent Quality Management Policy](#).

¹² *Ibid.*

3.4 Determinations Relating to Water Licence W2018L3-0001

The CGG did not propose a term length for the Licence in their Application. No comments or recommendations on the term length were received from reviewers during the public review. As ten-year terms are typical of municipal water licence issuances, the Board believes that a ten-year term would be appropriate for CGG.

After reviewing the submission of the Applicant, the written comments and submissions received by the Board, and having due regard to the facts and circumstances, the merits of the submissions made to it, and to the purpose, scope, and intent of the *Mackenzie Valley Resource Management Act* and the *Waters Act* and Regulations made thereunder, the Board recommends that Water Licence W2018L3-0001 be issued, subject to the terms and conditions contained therein. The Board's reasons for this recommendation are outlined below.

In general, the format and wording of Licences have evolved over time. The Board has attempted to ensure that the conditions discussed below and all others included in the Licence, are consistent with other water licences issued by the Boards.

3.4.1 Part A: Scope and Definitions

The Scope of the Licence has not changed and authorizes the Licensee to use water and dispose of Waste for municipal undertakings. The Board has made some minor edits to the scope to reflect general Board practice for municipal water licences (e.g. removal of geographical coordinates) and to update references to relevant Legislation.

The Board has updated the wording for definitions to reflect other, more recent, municipal water licences previously issued by the Board (e.g., Whati's W2018L3-0002¹³ and Wekweèti's W2017L3-0001¹⁴) and to increase the applicability of references made to the Water use or Waste Disposal Facilities to other locations. The Board has also added and removed definitions to reflect conditions included in the Licence.

3.4.2 Part B: General Conditions

Part B outlines matters regarding compliance and conformity with the MVRMA and the *Waters Act*, and an assortment of conditions that support the other sections of the Licence, including conditions pertaining to the Surveillance Network Program (SNP), measuring devices, signage, annual reporting, and the location of a copy of the Water Licence.

Several conditions have been added to the Part B of the Licence (e.g., Condition 5, 6, and 10). These conditions have been added to reflect the changes in the format of the Licence, ensure that references to any policies or guidelines are read as the most current version, and to be consistent with more recent municipal water licences. The wording in this section has been updated as well to be consistent with more recent municipal water licences, where appropriate.

3.4.3 Part C: Conditions Applying to Water Use

The quantity of water not to be exceeded by this Licence has not changed as the CGG did not apply for more water than what is outlined in their current Licence. No new conditions were added to this section

¹³ See WLWB Registry for [W2017L3-0002 – Whati – Type B Water Licence Renewal – Water Licence and SNP – Sep 22 17](#)

¹⁴ See WLWB Registry for [W2017L3-0001 – Wekweèti - Type B Water Licence Renewal – Water Licence and SNP – Sep 22 17](#)

of the Licence. The wording of the conditions in this section were updated, where appropriate, to be consistent with more recent municipal water licences.

3.4.4 Part D: Conditions Applying to Waste Disposal

The conditions in Part D of the Licence address waste disposal requirements. The conditions in this Licence are generally consistent with standard conditions found in other municipal water licences issued by the Board. Issues raised in the public review or changes to the existing Water Licence are discussed below.

Effluent Quality Criteria for Sewage Disposal Facilities

Part D of the Licence includes the Effluent Quality Criteria (EQC) for effluent from the Sewage Disposal Facilities, which is unchanged from the current Licence.

The Board's approach to managing the deposit of waste to the receiving environment through water licence terms and conditions is described in the Boards' *Water and Effluent Quality Management Policy*.¹⁵ Effective March 31, 2011, this Policy is being applied to all new and renewal water licence Applications throughout the Mackenzie Valley.

Part D, Conditions 2 and 3 of W2018L3-0001 detail the current Water Licence effluent quality criteria (EQC). During the public review, two recommendations regarding EQCs were made by GNWT-ENR. GNWT-ENR recommended that the EQC for the Sewage Disposal Facilities use carbonaceous biochemical oxygen demand (CBOD) instead of BOD₅ (GNWT-ENR comment 3). BOD₅ is the amount of dissolved oxygen needed by aerobic organisms to break down organic material present in a water sample when the nitrogenous bacteria have been suppressed (i.e. the nitrogen-containing organic material is not broken down), while a CBOD test includes an additive to suppress bacteria that consume nitrogenous material. Since CBOD and BOD₅ are closely related parameters that are both used to monitor the oxygen-consuming capability of sewage discharges, and because the *Wastewater System Effluent Regulations* use CBOD, CBOD will be monitored and used as the EQC for sewage discharge in this Water Licence instead of BOD₅. The CGG provided no comment on this recommendation. All communities in the Wek'èezhii region use Taiga Environmental Laboratory for sampling, and both Wekweètì and Whatì have changed their sampling from BOD₅ to CBOD following their respective Water Licence renewals in 2017. The Board understands that there would be no financial implication to the CGG because of this change. The EQC change is reflected in the Water Licence and the SNP.

GNWT-ENR (GNWT-ENR comment 4) also commented on the elevated levels of Total Suspended Solids (TSS) measured under the SNP. TSS is the dry-weight of undissolved particles in water, such as silt, plant or animal matter, and sewage. Similar to other communities in the region, the CGG manages their wastewater through a natural lake lagoon and wetland system, with sewage being discharged into the lagoon and filtered through a natural wetland before entering Rae Lakes. Table 1 below shows the readings from the last two years at the lagoon and wetland outlets. In the past two years, five of the six TSS samples at the lagoon outlet have exceeded the EQC.

¹⁵ See WLWB 'Policies and Guidelines' webpage for the [MVLWB Water and Effluent Quality Management Policy](#)

Table 1: Gamèti’s Licence EQCs and SNP results for TSS (2017-2018)

Table Key:		Sample below EQC.			Sample exceeds EQC.		
	Maximum Average Concentration	Jun 2017	Jul 2017	Oct 2017	Jun 2018	Jul 2018	Aug 2018
SNP 003-2 (lagoon outlet)	240 mg/L	328 mg/L	< 3 mg/L	2120 mg/L	242 mg/L	1640 mg/L	604 mg/L
SNP 003-3 (wetland outlet)	25 mg/L	< 3 mg/L	< 3 mg/L	< 3 mg/L	< 3 mg/L	< 3 mg/L	< 3 mg/L

GNWT-ENR commented that while TSS results at the wetland outlet have averaged < 3 mg/L (as shown in Table 1 above), the elevated TSS levels may reduce wetland treatment capacities over time. GNWT-ENR recommended that the CGG evaluate the potential sources of the elevation and outline management actions, in order to protect wetland treatment capabilities. The CGG responded that they would retain the services of a consultant to follow the recommendation, if required by the Board. The Board believes that directing the CGG to investigate the source of the increased levels of TSS would enable the CGG (or the Board if required) to better understand what further steps need to be undertaken to ensure that an acceptable level of water quality is maintained. The Board requires the CGG to provide steps and a timeframe to show how the elevated TSS levels will be addressed.

Decision 1: The Board directs the CGG to evaluate the source of the elevated TSS levels, provide steps and a timeframe to address the elevated TSS levels, and to provide an update in their next Annual Report.

Within the Water Licence, the EQC for SNP station 003-2 and 0003-3 are found in Part D, Conditions 4 and 5 respectively. No changes were made to the EQC values or parameters, except to change the parameter for BOD₅ to CBOD as described above.

Reporting SNP Exceedances

Part D, Condition 2 of the Licence was added to be more consistent with more recent municipal Water Licences. Part D, Condition 2 of the Licence reads “the Licensee shall immediately notify an Inspector of any SNP result that is above the criteria set out in Part D, Conditions 4 and 5. The Board believes this condition will allow all parties to monitor trends in raw water quality, solid waste runoff quality, and the concentrations and potential sources of inefficiency in sewage treatment.

Fencing at Solid Waste Facilities

During the public review, both GNWT-ENR and WRRB commented on the accessibility of the Solid Waste Facility. GNWT-ENR commented that there is no control on public access and recommended the CGG “develop systems and/or structures to control access”, while the WRRB recommended “the installation of a perimeter fence to keep wildlife out”. The CGG noted both recommendations but provided no further comment.

According to ECCC's technical guidance document, *Solid Waste Management for Northern and Remote Communities* (Waste Management Guidelines),¹⁶ controlled access is one of the most high-priority measures to ensure people and wildlife are protected from immediate risks. The Board has included Part D, Condition 10 in the Licence to ensure that the Licensee have fencing at the Solid Waste Facility.

3.4.5 Part E: Conditions Applying to Construction

Part E of the Licence addresses a variety of issues related to construction, including designs, maintenance, record-keeping, as-built drawings, notifications, and Board approval requirements. The main purpose of Part E is to ensure that Construction is carried out with appropriate standards and proper oversight, in order to facilitate good performance, avoid failures, and ultimately, to protect the environment. No conditions have been added or removed from this section of the Licence except that conditions pertaining to Construction have been moved from Part H of the current Licence to Part E of the Licence. The wording of the conditions in this section were updated, where appropriate, to be consistent with more recent municipal water licences.

3.4.6 Part F: Conditions Applying to Modifications

Part F of the Licence contains conditions outlining when and how Modification of the engineered structures may be authorized. The conditions also ensure that the Board and Inspector are kept informed and have the opportunity to require more information or reject the proposed Modification. Part F relies on the definition of Modification, which does not include expansions, or alternations of the purpose or function of a structure. No conditions in this section were added or removed from this section of the Licence. The wording of the conditions in this section were updated, where appropriate, to be consistent with more recent municipal water licences.

3.4.7 Part G: Conditions Applying to Contingency Plans

The conditions under part G of the Licence are standard conditions to ensure a plan is in place in the event of a spill. The intent is to ensure that any spills are effectively controlled and cleaned up in order to prevent or minimize damage to the receiving environment. No conditions in this section were added or removed from this section of the Licence, except for Part G, Condition 1 to reflect that the CGG has submitted a Spill Contingency Plan with the Application. The wording of the conditions in this section were updated, where appropriate, to be consistent with more recent municipal water licences.

3.4.8 Part H: Conditions Applying to Operations and Maintenance

No conditions have been added or removed from this section of the Licence, except for Part H, Condition 1 to reflect that the CGG has submitted Operation and Maintenance Plans with the Application. Since the addition of schedules in water licences, the Board has moved the requirements of the Operation and Maintenance Plans to Schedule 2. Conditions concerning Operation and Maintenance have moved from Part I of the current Licence to Part H of the Licence and the wording of the conditions in this section were also updated, where appropriate, to be consistent with more recent municipal water licences. Further discussion on each of the Operation and Maintenance Plans submitted with the Application is discussed in Section 3.5.

3.4.9 Part I: Conditions Applying to Closure and Reclamation, and Schedule 2

Part I of the Licence addresses the closure and reclamation of the waste disposal facilities. The general conditions are similar to those in other municipal licences. The Board previously approved Version 1.0 of

¹⁶ See Government of Canada Publications webpage for [Solid Waste Management for Northern and Remote Communities](#).

the CGG's Closure and Reclamation Plan, for the old Solid Waste and Sewage Disposal Facilities.¹⁷ There has not been any further Closure and Reclamation Plans submitted, as none of the currently used facilities are ready for closure.

The ECCC's Waste Management Guidelines¹⁸ provides guidance and best practice to northern communities regarding the planning, siting, design, operation, maintenance and closure of solid waste facilities. The Board encourages the CGG to use ECCC's document when preparing future Closure and Reclamation Plans.

No conditions have been added or removed from this section of the Licence. The wording of the conditions in this section were updated, where appropriate, to be consistent with more recent municipal water licences. Since the addition of schedules in water licences, the Board has moved the requirements of the Closure and Reclamation Plan to Schedule 3.

3.4.10 Schedule 1: Annual Report

The requirements for the Annual Report are outlined in Schedule 1. These requirements are standard and consistent with other municipal licences. The Board has included Annual Report requirements, for annual quantities of sludge in the sewage lagoon in Schedule 1, Condition C, and for a summary of sludge management activities in Schedule 1, Condition G. A discussion on these inclusions is below in section 3.5.2.

3.4.11 Schedule 2: Operations and Maintenance Plans

The requirements for the Operation and Maintenance Plans are outlined in Schedule 2. These requirements have not changed from the previous Licence; however, they have been moved from the Licence to a schedule.

3.4.12 Schedule 3: Closure and Reclamation Plan

The requirements for the Closure and Reclamation Plan are outlined in Schedule 3. These requirements are standard and consistent with other municipal licences issued by the Board. These requirements have not changed from the previous Licence; however, they have been moved from the Licence to a schedule.

3.4.13 Surveillance Network Program (SNP)

The SNP is one of the tools used to understand the water that passes through Waste Disposal Facilities into the receiving environment. Under the current SNP, the CGG is required to collect water samples from specific locations (SNP stations) and send those samples to an accredited laboratory for analysis. Results of the laboratory analysis are then compiled in reports, and these results are compiled and submitted to the Board as a requirement of the water licence. The wording in this section has been updated, where appropriate, to be consistent with more recent municipal water licences.

SNP locations and signage

GNWT-ENR (GNWT-ENR comment 7) recommended that the SNP locations be visually represented on maps, with the CGG responding that the locations would be included on future submissions of maps for each waste management facility, if required by the Board. Board staff (Board staff comment 7) asked whether signs were posted at each monitoring site, and the CGG responded that there are no signs posted.

¹⁷ See WLWB Registry for [W2008L3-0003 – Gamèti – SWF and WWTF – Directive and Reasons for Decision – Jul 20 17](#)

¹⁸ See Government of Canada Publications webpage for [Solid Waste Management for Northern and Remote Communities](#).

CGG are required as per Part B, Condition 5 of the W2008L3-0003 Licence¹⁹ (and Part B, Condition 8 of the Licence) to “post the necessary signs, where possible, to identify the stations of the “Surveillance Network Program”, a condition which remains unchanged in the Licence. The Board agrees with GNWT-ENR and believe that both maps and signage would ensure that SNP sampling is taken in the correct locations.

Decision 2: The Board directs the Community Government of Gamèti to include the locations of the SNP stations on maps in future Operation and Management Plan submissions, and to install a sign at each SNP station.

3.5 Operations and Maintenance Plans and Spill Contingency Plan

Together with the Application, the CGG submitted new versions of the O&M plans for the Solid Waste Facility, the Sewage Disposal Facility, and the Water Treatment Plant. The CGG also submitted a new version of the Spill Contingency Plan. These plans are discussed in the paragraphs below.

The Licence requires that the Licensee annually review its O&M Plans and its Spill Contingency Plan, and to submit an updated plan to reflect any changes (see Part G, Condition 1 and Part H, Condition 1). For increased clarity on the Online Registry, the Board directs the CGG update the versioning of any revised Plan submitted to the Board. Additionally, to be in line with the MVLWB’s *Standard Outline for Management Plan*,²⁰ the Board requires the CGG include a section (i.e., revision table) that outlines all the revisions made to each version. The Board required the same of both Whatì²¹ and Wekweèti²² during their Water Licence renewals.

Decision 3: The Board direct the CGG to update the version numbers and include a revision table for future Operation and Maintenance Plans or Spill Contingency Plans submitted to the Board under Part G, Condition 1 and Part H, Condition 1.

As per Part H, Condition 1 of the Licence, the Board expects the CGG will submit updates to the Plans to reflect changes in operation and technology when it annually reviews the Plans, and/or as requested by the Inspector or the Board.

3.5.1 Solid Waste Facility Operation and Maintenance Plan

As indicated in Section 2.0 of the Reasons for Decision, the CGG submitted Version 2.0 of the Solid Waste Facility O&M Plan with its Application.²³

The Solid Waste Facility O&M Plan states that hydrocarbon-contaminated soils are collected and stored west of the solid waste facility but are not contained within a properly designed, lined facility, and there are no methods in place to collect potentially-impacted run-off from the soil piles. During the public review, ECCC (ECCC comment 5) recommended that hydrocarbon-contaminating soils be managed to “prevent or contain leachate and runoff”, with smaller quantities in sealed and labeled drums and larger quantities at a landfarm facility. The CGG responded that the need to reassess the containment of hydrocarbon-contaminated soils was noted.

¹⁹ See WLWB Registry for [W2008L3-0003 – Gamèti – Water Licence – Updated SNP – Aug 30 16](#)

²⁰ See WLWB’s ‘Policies and Guidelines’ webpage for [Standard Outline for Management Plans](#).

²¹ See WLWB Registry for [W2007L3-0002 – Whatì – Type B Water Licence Renewal – Reasons for Decision – Sep 27 17](#)

²² See WLWB Registry for [W2017L3-0001 – Wekweèti – Type B Water Licence Renewal – Reasons for Decision – Sep 27 17](#)

²³ See WLWB Registry for [W2018L3-0001 – Operation and Maintenance Plan – Solid Waste Facility – Version 2.0 – Aug 1 18](#)

The Board agrees that hydrocarbon-contaminated soils need to be properly managed. The Board believes that a revised O&M plan should be submitted within the next six months, which provides details on how the CGG plans to assess the potential risks of the existing hydrocarbon-contaminated soils deposited west of the Solid Waste Facility, and how the CGG plans to safely manage hydrocarbon-contaminated soils in the future.

Decision 4: The Board directs the CGG to submit, within 6 months of the issuance of this Licence, Version 3.0 of the Solid Waste Facility O&M Plan, which provides detail on how the CGG plans to assess the potential risks of the existing hydrocarbon-contaminated soils and to safely manage future hydrocarbon-contaminated soils.

In the public review, Board staff (Board staff comment 8) asked how the CGG communicates to users of the Solid Waste Facility that the burning of liquid or solid waste is not permitted, as per Part D, Condition 8 of the Licence. The CGG responded stating that they note that signage should be put in place to ensure regulations on burning are clearly communicated to the community. The Board encourages the CGG to install a sign at the Solid Waste Facility informing users not to burn liquid or solid wastes.

The Solid Waste Facility O&M Plan stated that the facility has perimeter ditches to manage contact water, which drain north along the access road and is intercepted by the main road ditch. Pondered water forms at the old lagoon site, where water is suspected to drain through sand/gravel. ECCC commented that that it wasn't clear whether this could potentially drain towards fish-bearing waters, and if so, should be monitored and mitigated. The CGG responded that a drainage study has not been carried out, but the SNP station 003-4 measures runoff from the facility monthly, and the Department of Municipal and Community Affairs has recently installed groundwater wells for long-term monitoring in the vicinity of the facility. The Board notes that it is not currently clear where SNP station 003-4 is located in relation to the Solid Waste Facility. The Board requires this to be addressed, as per the Board's Decisions 2 and 8. The Board may provide additional comments regarding runoff from the Solid Waste Facility, once Version 3.0 of the Solid Waste O&M Plan is submitted.

ECCC (ECCC comment 4) recommended that CGG use the ECCC's Waste Management Guidelines,²⁴ to support responsible solid waste management. The Board agrees with this and encourages the CGG to use this technical guidance document during waste management planning, as well as the other guidance documents to assist waste management available on the Wek'èzhii Land and Water Board's Policy and Guidelines page.²⁵

3.5.2 Sewage Disposal Facility Operation and Management Plan

As indicated in Section 2.0 of the Reasons for Decision, the CGG submitted Version 2.0 of the Sewage Disposal Facility O&M Plan with its Application.²⁶

During the public review, comments were made on aspects of the Sewage Disposal Facility O&M Plan. These comments are addressed in the subsection below, or in the discussions in sections 3.4.4 and 3.4.13.

²⁴ See Government of Canada Publications webpage for [Solid Waste Management for Northern and Remote Communities](#).

²⁵ See the [WLWB Policies and Guidelines webpage](#).

²⁶ See WLWB Registry for [W2018L3-0001 – Operation and Maintenance Plan – Sewage Disposal Facility – Version 2.0 – Aug 1 18](#)

Sludge from the Sewage Disposal Facilities

In the Board's July 20, 2018 Reasons for Decision,²⁷ the Board directed the CGG to submit Version 2.0 of the Wastewater Treatment O&M Plan, and to include an updated Sludge Management Plan identifying guidelines to be used in evaluating sludge quality and suitability for cover material. The most recent O&M Plan did not include this information.

During the public review, both ECCC (ECCC comment 7) and GNWT-ENR (GNWT-ENR comment 6) commented on sludge management. ECCC recommended that sludge treatment/disposal methods and disposal criteria be developed. GNWT-ENR recommended that the CGG specify the guidelines they will use to assess sludge quality, and that conditions related to sludge management be included in the Water Licence. The CGG responded to each recommendation stating they would retain consultants to undertake further action if required by the Board, to address sludge removal activities, develop a Desludging Plan, and update their Sludge Management Plan. The Board believes that incorporating the sludge management activities into the O&M Plan for the Sewage Disposal Facilities is necessary to ensure the CGG is effectively managing sludge at the facility. The Board has added Condition 2 to Part H and Conditions 1c) and 1d) to Schedule 2 of the Licence.

Decision 5: The Board directs the CGG to submit, within 3 months of the issuance of this Licence, Version 3.0 of the Sewage Disposal Facilities O&M Plan, to incorporate sludge management and include the guidelines that will be used to evaluate sludge quality and suitability for cover material.

As specified in section 4.4.10, additional Annual Report requirements have been added to the Licence, respectively for annual quantities of sludge in the sewage lagoon in Schedule 1, Condition C, and for a summary of sludge management activities in Schedule 1, Condition G. As discussed above in Section 3.4.13 of the Reasons for Decision, any details and figures included concerning the location of SNP stations need to be updated in future Operation and Management Plans.

3.5.3 Water Treatment Plant Operation and Maintenance Plan

As indicated in Section 2.0 of the Reasons for Decision, the CGG submitted Version 2.0 of the Water Treatment Plant O&M Plan with its Application.²⁸ No concerns were raised in the public review regarding the Water Treatment Plant O&M Plan. The Board is satisfied with this version of the O&M Plan, and recommend that Version 2.0 of the Water Treatment Plant Facility O&M Plan be approved.

Decision 6: The Board approves Version 2.0 of the Water Treatment Plant O&M Plan.

3.5.4 Spill Contingency Plan

As indicated in Section 2.0 of the Reasons for Decision, the CGG submitted Version 2.0 of the Spill Contingency Plan with its Application.²⁹ During the public review, Board staff commented on several items within the Spill Contingency Plan. A discussion of issues and summary of recommendations is below.

Board staff (Board staff comment 1) asked the whereabouts of the Emergency telephones and/or radios which was listed as location unknown in the Plan. CGG responded stating the emergency phone is located at the community's main office, and that the Spill Contingency Plan would be updated to include this information.

²⁷ See WLWB Registry for [W2008L3-0003 – O and M Plans – Version 1.1 – Directive and Reasons for Decision – Jul 20 17](#)

²⁸ See WLWB Registry for [W2018L3-0001 – Operation and Maintenance Plan – Water Treatment Plant – Version 2.0 – Aug 1 18](#)

²⁹ See WLWB Registry for [W2018L3-0001 – Operation and Maintenance Plan – Spill Contingency Plan – Version 2.0 – Aug 1 18](#)

Board staff (Board staff comment 2) asked for the CGG to confirm whether there are copies of the Spill Contingency Plan kept onsite at each facility, as recommended in the Spill Contingency Plan template. The CGG responded stating that the Community's main office and Community Garage currently have copies, that additional copies may be stored at other locations as recommended by the Board, and that details of these locations would be updated accordingly. The Board believes copies of the Spill Contingency Plan should be kept at each facility.

Board staff (Board staff comment 3) asked for the CGG to provide a summary of the "average Quantity Normally Onsite (L/drums/gallons) for the Hazardous Materials" that were listed in the plan without a quantity specified. The CGG acknowledged this, and stated that there was no current inventory of hazardous material quantities, and that this would be added to a future submission of the Spill Contingency Plan if required by the Board.

Board staff (Board staff comment 5) asked the CGG to specify which facilities had spill kits, and if there were none, whether the CGG had plans for spill kits to be kept onsite. Board staff also asked, if there were facilities with spill kits, whether the CGG could provide a summary of the capabilities and items included in each spill kit. The CGG stated that the number and location of spill kits within the community was unknown, and that they would include more information regarding spill kits availability and locations in a future submission, if required by the Board. The Board believes that having spill kits, knowing where they are located, and how much spilled oil/fuel they are designed to contain and collect, is critical to reducing potential impacts should a spill occur.

Board staff (Board staff comment 6) asked the CGG to clarify whether the location of the training records was unknown or whether it was unknown if training records exist, as it was unclear within the Spill Contingency Plan. The CGG responded stating it was unknown whether training records exist. Training records help identify which members of the community works department have training, which can include orientation, mock spill exercises, and first aid. As per the Spill Contingency Plan template, a spreadsheet can be kept by the Band Manager or Senior Administrative Officer at the Community head office indicating the training undertaken by the facility operator, and the expiry dates for specific training. The Board believes the CGG should begin to keep training records, if no such record exists.

The Board believes that the Spill Contingency Plan requires further revision to address the topics raised in the public review, and recommend that the CGG be required to submit a new version of the Spill Contingency Plan with the following information:

Decision 7: The Board directs the CGG to submit, within 6 months of the issuance of this Licence, Version 2.1 of the Spill Contingency Plan which address the following:

- i. Update the locations of the emergency phones and/or radios;***
- ii. Update the locations of the facilities with copies of the Spill Contingency Plans;***
- iii. Provide a summary of the average Quantity Normally Onsite of Hazardous Materials listed in the plan;***
- iv. Provide a summary of the facilities that have spill kits, what is included in each spill kit, and the litres of spilled fuel/oil each spill kit is designed to collect and contain; and***
- v. Confirm that training records are being kept.***

3.6 As-built drawings for the Solid Waste Facility and the Sewage Disposal Facility

In the public review, Board staff (Board staff comment 10) commented that the Board had previously directed³⁰ the CGG to provide as-built drawings for the Solid Waste Facility and the Sewage Disposal Facility, and asked why the as-built drawings were not available and when they will be submitted. The CGG responded stating they would look into retaining the services of an Engineer to provide as-built drawings for the Solid Waste Facility.

As per Part H, Condition 3 of the current Licence (and Part E, Condition 3 of the Licence), the CGG is required to submit as-built drawings, stamped by a qualified engineer registered in the Northwest Territories, to the Board within ninety (90) days of completing a facility. As-built drawings assist the Board and interested parties in better understanding how facilities are constructed and any potential environmental consequences. Both the Solid Waste Facility and Sewage Disposal Facility were completed and opened in 2017, and as-built drawings are required for both facilities as per the Licence.

Decision 8: The Board reiterates the CGG is to submit as-built drawings, within ninety (90) days of the issuance of this Licence, for the Solid Waste Facility and the Sewage Disposal Facility, as per Part H, Condition 3 of the W2008L3-0003 Licence.

3.7 Security

Not applicable. The Board does not typically require security from community government.

3.8 Conclusion

Subject to the term and conditions set out in the Licence, and for the reasons expressed herein, the Board believes that the licensed undertaking for water use and waste disposal associated with the Community of Gamèti can be completed by the Licensee while providing for the conservation, development, utilization of waters in a manner that will provide the optimum benefit for all Canadians, and in particular, for the residents of Wek'èezhìi.

Signed the 21th of December, 2018, on behalf of the Wek'èezhìi Land and Water Board



Witness



Joe Mackenzie
Chair, Wek'èezhìi Land and Water Board

³⁰ See WLWB Registry for [W2008L3-0003 – Gamèti – SWF and WWTF – Directive and Reasons for Decision – Jul 20 17](#)