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May 20, 2022

File: G22L3-001

Jeff Mercier, SAO
Charter Community of Tsiigehtchic
General Delivery
Tsiigehtchic, NT X0E 0B0

Sent by email

Dear Jeff,

Re: Tsiigehtchic Municipal Water Licence – Renewal Issuance Package – Water Licence G22L3-001

The Gwich'in Land and Water Board (Board) met on May 9, 2022 and considered the Application Package submitted by the Charter Community of Tsiigehtchic, for the renewal of Water Licence G16L3-001 (former G99L3-004) for the Municipal water use and deposit of waste in accordance with the *Waters Act*.

The Board has approved Water Licence (Licence) G22L3-001 (attached) for a term of 5 years, effective May 9, 2022 and expiring May 8, 2027. The Licence is supported by the Board's Reasons for Decision. These documents are posted to the Board's Public Registry.¹

Submission Requirements

Please refer to Annex B of the Licence for a complete summary and timetable of submissions required for this Licence. The Board's decisions on submissions that were considered in conjunction with the renewal Application Package are set out below.

Management Plans Not Approved

The Board requires that the community update its Solid Waste Disposal Facilities OMP, Sewage Disposal Facilities OMP, Water Treatment OMP and Spill Contingency Plan, and submit these documents to the Board for approval within 90 days of Licence Issuance.

¹ See GLWB Online Registry www.glwb.com for file [G22L3-001](#)

Engagement Plan

The Board requires that the Community undertake community Engagement and, within ninety days of Licence issuance, submit to the Board for approval an Engagement Record and Plan, in accordance with the MVLWB *Engagement and Consultation Policy* and *Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits*.² It is the Board's expectation that community concerns identified during public engagement will further inform the updates to relevant operational management plans and assist the community in developing a priority sequence for addressing the required improvements to the waste and water management systems.

Contact information for Inspectors and Analyst

Please note that the Inspectors referred to in the Licence can be contacted at the regional GNWT-ENR offices.³ The Analyst referred to in the Surveillance Network Program annexed to the Licence can be contacted at the Taiga Environmental Laboratory.⁴

Licence Processes and Additional Information

Sections 5 and 6 of the Board's *Guide to the Water Licensing Process*⁵ (Guide) contain detailed information on licence enforcement and potential post-issuance processes, such as amendments to conditions, and assignment to another company. Please be familiar with these sections of the Guide and reach out to Board staff with any questions about Board processes related to the Licence.

Full cooperation of The Charter Community of Tsiigehtchic is anticipated and appreciated. Please contact Regulatory Specialist AlecSandra Macdonald at (867) 777-4954 with any questions or concerns regarding this letter.



Elizabeth Wright
Chair, Gwich'in Land and Water Board

BCC'd to: GLWB Distribution List
Attached: Water Licence G22L3-001 and Reasons for Decision

² See GLWB Policies and Guidelines webpage for MVLWB [Engagement and Consultation Policy](#) and [Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits](#).

³ See GNWT-ENR Regional Offices webpage (<https://www.enr.gov.nt.ca/en/regional-offices>) for regional contact information.

⁴ See GNWT-ENR Taiga Environmental Laboratory webpage (<https://www.enr.gov.nt.ca/en/services/taiga-environmental-laboratory>) for contact information.

⁵ See GLWB Policies and Guidelines webpage for MVLWB [Guide to the Water Licensing Process](#).



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Water Licence G22L3-001

Pursuant to the *Waters Act* and the Waters Regulations,
the Gwich'in Land and Water Board grants this Water Licence to:

The Charter Community of Tsiigehtchic

(Licensee)

of General Delivery, Tsiigehtchic NT X0E 0B0

(Mailing Address)

hereinafter called the Licensee, to proceed with the following undertaking, subject to the annexed definitions and conditions contained therein:

Location:	Tsiigehtchic, NT
Water Management Area:	Northwest Territories 03
Purpose:	Municipal Water Use and Deposit of Waste
Type:	B Renewal
Quantity of Water not to be exceeded:	20, 000 m ³ per year
Effective Date:	May 9, 2022
Expiry Date:	May 8, 2027

Elizabeth Wright, Chair
Gwich'in Land and Water Board

AlecSandra Macdonald, Witness

Type B Water Licence G22L3-001

Charter Community of Tsiigehtchic – Municipal Water Licence

Table of Contents

Part A: Scope and Defined Terms

Part B: General Conditions

Part C: Security

Part D: Water Use

Part E: Construction

Part F: Waste and Water Management

Part G: Aquatic Effects Monitoring

Part H: Spill Contingency Planning

Part I: Closure and Reclamation

Schedules

Schedule 1: Annual Water Licence Report (Part B)

Schedule 2: Structure Description and Construction Plan (Part E)

Schedule 3: Waste and Water Management (Part F)

Schedule 3: Facility Specific Closure and Reclamation Plan (Part I)

Annex A: Surveillance Network Program

Annex B: Concordance Table of Items Requiring Submission

Annex C: Table of Revision History

Part A: Scope and Defined Terms

Scope:

		Condition Title
1.	This Licence entitles the Licensee to use Water and deposit Waste for municipal undertakings at Tsiigehtchic, NT.	SCOPE
	The scope of this Licence includes the following:	
	a) Withdrawal of Water for municipal purposes;	
	b) Deposit of Waste to the Solid Waste Disposal Facilities;	
	c) Deposit of Waste to the Sewage Disposal Facilities;	
	d) Construction, operation, and maintenance of the Solid Waste Disposal Facilities;	
	e) Construction, operation, and maintenance of the Sewage Disposal Facilities;	
	f) Construction, operation, and maintenance of the Water Treatment Facilities; and	
	g) Progressive Reclamation and associated Closure and Reclamation activities.	
2.	This Licence is issued subject to the conditions contained herein with respect to the use of Water and the deposit of Waste in any Waters or in any place under any conditions where such Waste or any other Waste that results from the deposits of such Waste may enter any Waters. Any change made to the <i>Waters Act</i> and/or the Waters Regulations that affects licence conditions and defined terms will be deemed to have amended this Licence.	LEGISLATION SUBJECT TO CHANGE
3.	Compliance with this Licence does not relieve the Licensee from responsibility for compliance with the requirements of any applicable federal, territorial, or municipal legislation.	LEGISLATIVE COMPLIANCE

Defined Terms

Analyst – an Analyst designated by the Minister under subsection 65(1) of the *Waters Act*.

Average Concentration – the arithmetic mean/discrete average of four consecutive analytical results, [or if less than four analytical results, the arithmetic mean/discrete average of the analytical results collected during a batch decant,] as submitted to the Board in accordance with the sampling and analysis requirements specified in the Surveillance Network Program.

Bagged Toilet Wastes Disposal Facilities – comprises the area within the Solid Waste Disposal Facility and associated structures designed to contain bagged toilet Wastes (honey bags);

Board – Gwich'in Land and Water Board, established under Part 3 of the *Mackenzie Valley Resource Management Act*.

Closure and Reclamation – the process and activities that facilitate the return of areas affected by the Project to viable and, wherever practicable, self-sustaining ecosystems that are compatible with a healthy environment and human activities.

Closure and Reclamation Plan (CRP) – a document, developed in accordance with this Licence, that clearly describes the Closure and Reclamation for the Project.

Construction – any activities undertaken during any phase of the Project to construct or build any structures, facilities or components of, or associated with, the development of the Project.

Discharge – a direct or indirect deposit or release of any Water or Waste to the Receiving Environment.

Effluent – a Wastewater Discharge.

Effluent Quality Criteria (EQC) – numerical or narrative limits on the quality or quantity of the Waste deposited to the Receiving Environment.

Engagement Plan – a document, developed in accordance with the MVLWB *Engagement and Consultation Policy* and the *Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits*, that clearly describes how, when, and which engagement activities will occur with an affected party during the life of the Project.

Engineered Structure – any structure or facility related to Water Use or the deposit of Waste that is designed by a Professional Engineer.

Freeboard – the vertical distance between the Water or Wastewater line and the lowest elevation of the effective Water or Wastewater containment crest on the upstream slope of a containment structure.

Greywater – all liquid Waste from showers, baths, sinks, kitchens, and domestic washing facilities, but does not include Toilet Waste.

Groundwater – as defined in section 1 of the Waters Regulations: all water in a zone of saturation below the land surface, regardless of its origin.

Hazardous Waste - a Waste which, because of its quantity, concentration, or characteristics, may be harmful to human health or the environment when improperly treated, stored, transported, or discharged.

Inspector – an Inspector designated by the Minister under subsection 65(1) of the *Waters Act*.

Licensee – the holder of this Licence.

Maximum Average Concentration – the concentration of a parameter that cannot be exceeded by the running average of any four consecutive analytical results.

Minister – the Minister of the Government of the Northwest Territories – Environment and Natural Resources.

Professional Engineer – a person registered with the Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists to practice as a Professional Engineer in the Northwest Territories as per the territorial *Engineering and Geoscience Professions Act* and whose professional field of specialization is appropriate to address the components of the Project at hand.

Progressive Reclamation – Closure and Reclamation activities conducted during the operating phase of the Project.

Project – the undertaking described in Part A, Condition 1.

Receiving Environment – the natural environment that, directly or indirectly, receives any deposit of Waste from the Project.

Remediation – the removal, reduction, or neutralization of substances, Wastes, or hazardous materials from a site in order to prevent or minimize any adverse effects on the environment and public safety, now or in the future.

Runoff – the overland flow of Water or Wastewater that occurs when precipitation, meltwater, or other Water is not absorbed by the land.

Seepage – any Water or Waste that drains, passes through, or escapes from any structure designed to contain, withhold, divert, or retain Water or Waste.

Sewage – all Toilet Wastes and Greywater.

Sewage Disposal Facilities (SDF) – the area(s) and structures designated to contain and treat Sewage.

Solid Waste Disposal Facilities (SWDF) – the area(s) and structures designated to contain solid Waste.

Spill Contingency Plan (SCP) – a document developed for the Project in accordance with INAC's *Guidelines for Spill Contingency Planning*.

Surveillance Network Program (SNP) – a monitoring program required by this Licence and detailed in Annex A.

Toilet Wastes – all human excreta and associated products, not including Greywater.

Traditional Knowledge – As defined by Gwich'in Tribal Council's *Working with Gwich'in Traditional Knowledge In The Gwich'in Settlement Region*, that body of knowledge, values, beliefs and practices passed from one generation to another by oral means or through learned experience, observation and spiritual teachings, and pertains to the identity, culture and heritage of the Gwich'in. This body of knowledge reflects many millennia of living on the land. It is a system of classification, a set of empirical observations about the local environment, and a system of self-management that governs the use of resources and defines the relationship of living beings with one another and with their environment.

Unauthorized Discharge – a Discharge of any Water or Waste not authorized under this Licence

Waste – as defined in section 1 of the *Waters Act*:

- a) a substance that, if added to water, would degrade or alter or form part of a process of degradation or alteration of the quality of the water to an extent that is detrimental to its use by people or by an animal, fish or plant, or
- b) water that contains a substance in such a quantity or concentration, or that has been so treated, processed or changed, by heat or other means, that it would, if added to other water, degrade or alter or form part of a process of degradation or alteration of the quality of that water to the extent described in paragraph (a) and includes
- c) a substance or water that, for the purposes of the *Canada Water Act*, is deemed to be waste,
- d) a substance or class of substances prescribed by regulations made under subparagraph 63(1)(b)(i),
- e) water that contains a substance or class of substances in a quantity or concentration that is equal to or greater than a quantity or concentration prescribed in respect of that substance or class of substances by regulations made under subparagraph 63(1)(b)(ii), and
- f) water that has been subjected to a treatment, process or change prescribed by regulations made under subparagraph 63(1)(b)(iii).

Waste Disposal Facilities – the area(s) and structures designated for the disposal of Waste, including, but not limited to, the Sewage Disposal Facilities and Solid Waste Disposal Facilities.

Waste Management Plan (WMP) – a document, developed in accordance with the MVLWB *Guidelines for Developing a Waste Management Plan*, that describes the methods of Waste management for the Project from Waste generation to final disposal.

Wastewater – any Water that is generated by Project activities or originates on-site, and which contains Waste, and may include, but is not limited to, Runoff, Seepage, Sewage, and Effluent.

Wastewater Treatment Facilities – the area(s) and structures designated for the treatment of Wastewater.

Water – as defined in section 1 of the *Waters Act*: water under the administration and control of the Commissioner, whether in a liquid or frozen state, on or below the surface of land.

Watercourse – as defined in section 1 of the Waters Regulations: a natural watercourse, body of Water or Water supply, whether usually containing Water or not, and includes Groundwater, springs, swamps, and gulches.

Waters Regulations – the regulations proclaimed pursuant to section 63 of the *Waters Act*.

Water Treatment Facilities – the area(s) and structures designed to collect, treat, and supply Water for the Project.

Water Use – as defined in section 1 of the *Waters Act*: a direct or indirect use of any kind, including, but not limited to,

- a) a diversion or obstruction of waters,
- b) an alteration of the flow of waters, and
- c) an alteration of the bed or banks of a river, stream, lake or other body of water, whether or not the body of water is seasonal, but does not include a use connected with shipping activities that are governed by the *Canada Shipping Act, 2001*.

	Condition	Condition Title
	Part B: General Conditions	
1.	The Licensee shall ensure a copy of this Licence is maintained at the municipal office at all times.	COPY OF LICENCE
2.	The Licensee shall take every reasonable precaution to protect the environment.	PRECAUTION TO PROTECT ENVIRONMENT
3.	In conducting its activities under this Licence, the Licensee shall make every reasonable effort to consider and incorporate any scientific information and Traditional Knowledge that is made available to the Licensee.	INCORPORATE SCIENTIFIC INFORMATION AND TRADITIONAL KNOWLEDGE
4.	In each submission required by this Licence or by any directive from the Board, the Licensee shall identify all recommendations based on Traditional Knowledge received, describe how the recommendations were incorporated into the submission, and provide justification for any recommendation not adopted.	IDENTIFY TRADITIONAL KNOWLEDGE
5.	All references to policies, guidelines, codes of practice, statutes, regulations, or other authorities shall be read as a reference to the most recent versions, unless otherwise noted.	REFERENCES
6.	The Licensee shall ensure all submissions to the Board: <ul style="list-style-type: none"> a) Are in accordance with the MVLWB <i>Document Submission Standards</i>; b) Include a conformity statement or table which identifies where the requirements of this Licence, or other directives from the Board, are addressed; and c) Include any additional information requested by the Board. 	SUBMISSION FORMAT AND CONFORMITY
7.	The Licensee shall ensure management plans are submitted to the Board in a format consistent with the MVLWB <i>Standard Outline for Management Plans</i> , unless otherwise specified.	MANAGEMENT PLAN FORMAT
8.	The Licensee shall comply with all plans - including revisions, approved pursuant to the conditions of this Licence.	COMPLY WITH SUBMISSIONS AND REVISIONS

9.	The Licensee shall conduct an annual review of all approved plans and make any revisions necessary to reflect changes in operations, contact information, or other details.	ANNUAL REVIEW
10.	The Licensee may, at any time, propose changes to any plan by submitting revisions to the Board, for approval, a minimum of 90 days prior to the proposed implementation date for the changes. The Licensee shall not implement the changes until approved by the Board.	REVISIONS
11.	The Licensee shall revise any submission and submit it as per the Board's directive.	REVISE AND SUBMIT
12.	If any date for any submission falls on a weekend or holiday, the Licensee may submit the item on the following business day.	SUBMISSION DATE
13.	The Licensee shall comply with the Schedules , which are annexed to and form part of this Licence, and any updates to the Schedules as may be made by the Board.	COMPLY WITH SCHEDULE(S)
14.	The Licensee shall comply with the Surveillance Network Program , which is annexed to and forms part of this Licence, and any updates to the Surveillance Network Program as may be made by the Board.	COMPLY WITH SURVEILLANCE NETWORK PROGRAM
15.	Within twelve (12) months following issuance, the Licensee shall submit to the Board, for approval, a Proposal to Revise the Surveillance Network Program which shall include the geographic coordinates and descriptions for stations listed in the Surveillance Network Program annexed to this Licence. The Licensee shall collaborate with the Board and an Inspector to select suitable Surveillance Network Program station locations.	REVISE SURVEILLANCE NETWORK PROGRAM
16.	The Schedules, the Surveillance Network Program, and any compliance dates specified in this Licence may be updated at the discretion of the Board.	UPDATES TO COMPLIANCE DATE(S)
17.	The Licensee shall comply with all directives issued by the Board in respect of the implementation of the conditions of this Licence.	COMPLY WITH BOARD DIRECTIVES

18.	The Licensee shall ensure signs are posted for all active Surveillance Network Program stations. All sign(s) shall be located and maintained to the satisfaction of an Inspector.	POST SURVEILLANCE NETWORK PROGRAM SIGN(S)
19.	The Licensee shall install, operate, and maintain meters, devices, or other such methods for measuring the volumes of Water used and Waste discharged to the satisfaction of an Inspector.	MEASURE WATER USE AND WASTE DISCHARGED
20.	Beginning March 31, 2023 and no later than every March 31 thereafter, the Licensee shall submit an Annual Water Licence Report to the Board and an Inspector. The Report shall be in accordance with the requirements of Schedule 1, Condition 1.	ANNUAL WATER LICENCE REPORT
21.	Within ninety (90) days following the effective date of this Licence, the Licensee shall submit to the Board, for approval, an Engagement Plan . The Licensee shall comply with the Engagement Plan , once approved.	ENGAGEMENT PLAN
22.	The Licensee shall immediately provide written notification to the Board and an Inspector of any non-compliance with the conditions of this Licence.	NOTIFICATION – NON-COMPLIANCE
23.	The Licensee shall ensure that a copy of any written authorization issued to the Licensee by an Inspector is provided to the Board.	COPY – WRITTEN AUTHORIZATION
	Part C: Security	
	<i>Section Left Intentionally Blank</i>	
	Part D: Water Use	
1.	The Licensee shall only obtain Water for the Project from Tso Lake. The Licensee may withdraw up to 20,000 m ³ per year of Water from this source.	WATER SOURCE AND MAXIMUM VOLUME
2.	The Licensee shall only withdraw Water using the Water Treatment Facilities, unless otherwise authorized temporarily in writing by an Inspector.	WATER TREATMENT – FACILITIES

3.	The Licensee shall operate and maintain the Water Treatment Facilities to prevent structural failure and to the satisfaction of an Inspector.	PREVENT STRUCTURAL FAILURE - WATER
4.	The Licensee shall construct and maintain the Water intake(s) with a screen designed to prevent impingement or entrapment of fish.	WATER INTAKE SCREEN
Part E: Construction		
1.	The Licensee shall ensure that all structures intended to contain, withhold, divert, or retain Water or Waste are designed, constructed, and maintained to minimize the escape of Waste to the Receiving Environment.	OBJECTIVE – CONSTRUCTION
2.	The Licensee shall ensure that all Engineered Structures are constructed and maintained in accordance with the recommendations of the Professional Engineer responsible for the design, including, but not limited to, recommendations regarding field supervision and inspection requirements.	ENGINEERED STRUCTURES – GENERAL
3.	The Licensee shall only use material that is clean and free of contaminants and is from a source that has been authorized in writing by an Inspector.	CONSTRUCTION MATERIAL – SOURCE(S)
4.	The Licensee shall maintain records of Construction materials for all structures and make them available at the request of the Board or an Inspector.	CONSTRUCTION RECORDS
5.	A minimum of 90 days prior to the commencement of Construction of any Engineered Structures, the Licensee shall submit to the Board, for approval, a Design and Construction Plan . The Licensee shall not commence Construction of the Engineered Structure(s) prior to Board approval of the Plan.	DESIGN AND CONSTRUCTION PLAN
6.	A minimum of 90 days prior to the commencement of Construction of any Engineered Structures the Licensee shall submit to the Board, Design Drawings stamped and signed by a Professional Engineer. A minimum of 90 days prior to implementing any proposed changes to the Design Drawings, the Licensee shall submit revised Design Drawings to the Board.	DESIGN DRAWINGS
7.	A minimum of ten days prior to the commencement of Construction of any structure(s) intended to contain, withhold, divert, or retain Water or Wastes, the Licensee shall provide written notification to the Board and an Inspector. Notification	NOTIFICATION – CONSTRUCTION

	shall include the Construction commencement date, and the name and contact information for the individual responsible for overseeing the Construction. Written notification shall be provided to the Board and an Inspector if any changes occur.	
8.	The Licensee shall ensure that all Engineered Structures are constructed in accordance with the Design Drawings and approved Design and Construction Plan .	CONSTRUCT AS DESIGNED – ENGINEERED STRUCTURE(S)
9.	<p>Within 90 days of the completion of the Construction of each Engineered Structure, the Licensee shall submit to the Board, an As-Built Report stamped and signed by a Professional Engineer, which shall include, but not be limited to, the following information:</p> <p>a) final as-built drawings of the Engineered Structure(s), stamped and signed by a Professional Engineer;</p> <p>b) documentation, with rationale, of field decisions that deviate from the Design and Construction Plans and/or Design Drawings and any data used to support these decisions.</p>	AS-BUILT REPORT – ENGINEERED STRUCTURE(S)
Part F: Waste and Water Management		
1.	The Licensee shall manage Waste and Water with the objective of minimizing the impacts of the Project on the quantity and quality of Water in the Receiving Environment through the use of appropriate mitigation measures, monitoring, and follow-up actions.	OBJECTIVE – WASTE AND WATER MANAGEMENT
2.	The Licensee shall operate and maintain the Waste Disposal Facilities to prevent structural failure and to the satisfaction of an Inspector.	PREVENT STRUCTURAL FAILURE - WASTE
3.	The Licensee shall minimize erosion by implementing suitable erosion control measures that shall be located and maintained to the satisfaction of an Inspector.	EROSION CONTROL
4.	The Licensee shall not accept Sewage and solid Wastes generated by industrial, commercial, and institutional operators working outside of the local government boundaries of The Charter Community of Tsiigehtchic, unless authorized in writing by an Inspector.	OUTSIDE WASTES – MUNICIPAL

5.	The Licensee shall not accept Hazardous Wastes generated by commercial and industrial operators at the Waste Disposal Facilities.	HAZARDOUS WASTES – MUNICIPAL
6.	The Licensee shall not accept hydrocarbon contaminated snow, soil, or water at the Waste Disposal Facilities.	HYDROCARBON CONTAMINATED MATERIALS
7.	The Licensee shall comply with the Sewage Disposal Facility Operation and Maintenance Plan , once approved.	SEWAGE DISPOSAL FACILITIES OPERATION AND MAINTENANCE PLAN
8.	Within ninety (90) days following the effective date of this Licence, the Licensee shall submit to the Board, for approval, a revised Sewage Disposal Facilities Operation and Maintenance Plan . The Plan shall be in accordance with the requirements of Schedule 3, Condition 1.	SEWAGE DISPOSAL FACILITIES OPERATION AND MAINTENANCE PLAN - REVISED
9.	The Licensee shall maintain a Freeboard limit of one metre at the Sewage Disposal Facilities, or as recommended by a Professional Engineer and as approved by the Board.	SEWAGE DISPOSAL FACILITIES – FREEBOARD
10.	The Licensee shall operate and maintain the Sewage Disposal Facilities to prevent structural failure and to the satisfaction of an Inspector.	MAINTAIN SEWAGE DISPOSAL FACILITIES
11.	The Licensee shall conduct Annual inspections of the Sewage Disposal Facilities or as otherwise directed by an Inspector or the Board. Records of these inspections shall be made available to the Board or an Inspector upon request.	ANNUAL INSPECTION OF SEWAGE DISPOSAL FACILITIES
12.	The Licensee shall discharge all Effluent from Sewage Disposal Facilities as described in the approved Sewage Disposal Facilities Operation and Maintenance Plan	EFFLUENT DISCHARGE –

		SEWAGE DISPOSAL FACILITIES								
13.	<p>The Licensee shall ensure that all effluent discharged from the Sewage Disposal Facilities at SNP station 1557-4</p> <p>a) has no visible sheen of oil and grease, b) has a pH value between 6 and 9, and c) meets the following Effluent Quality Criteria (EQC):</p> <table border="1" data-bbox="424 394 1514 594"> <thead> <tr> <th>Parameter</th> <th>Maximum Average Concentration</th> </tr> </thead> <tbody> <tr> <td>Fecal Coliforms (FC)</td> <td>1 x 10⁶ FC/100mL</td> </tr> <tr> <td>BOD₅</td> <td>120 mg/L</td> </tr> <tr> <td>Suspended Solids</td> <td>180 mg/L</td> </tr> </tbody> </table>	Parameter	Maximum Average Concentration	Fecal Coliforms (FC)	1 x 10 ⁶ FC/100mL	BOD ₅	120 mg/L	Suspended Solids	180 mg/L	EFFLUENT QUALITY CRITERIA- SEWAGE
Parameter	Maximum Average Concentration									
Fecal Coliforms (FC)	1 x 10 ⁶ FC/100mL									
BOD ₅	120 mg/L									
Suspended Solids	180 mg/L									
14.	The Licensee shall notify an Inspector and the Board at least ten days prior to initiating decant of the Sewage Disposal Facilities.	DECANT NOTIFICATION – SEWAGE DISPOSAL FACILITIES								
15.	In the event that Sewage Sludge and sediments originating in the Sewage Disposal Facilities require removal at any time during the term of this Licence, such material shall be managed in the manner described in the approved Sewage Disposal Facilities Operation and Maintenance Plan , or as otherwise authorized in writing by the Board.	SLUDGE REMOVAL								
16.	The Licensee shall notify the Board and Inspector, in writing, at least ten (10) days prior to initiating sludge removal	NOTIFICATION OF SLUDGE REMOVAL								
17.	All bagged toilet Wastes (honey bags) shall be disposed of at the Bagged Toilet Waste Disposal Facilities to the satisfaction of an Inspector.	HONEY BAG DISPOSAL								
18.	The Licensee shall comply with the Solid Waste Disposal Facilities Operation and Maintenance Plan , once approved.	SOLID WASTE DISPOSAL FACILITIES OPERATION AND								

		MAINTENANCE PLAN
19.	Within ninety (90) days following the effective date of this Licence, the Licensee shall submit to the Board, for approval, a revised the Solid Waste Disposal Facilities Operation and Maintenance Plan . The Plan shall be in accordance with the requirements of Schedule 3, Condition 2.	SOLID DISPOSAL FACILITIES OPERATION AND MAINTENANCE PLAN - REVISED
20.	The Licensee shall maintain the Solid Waste Disposal Facilities to the satisfaction of an Inspector.	MAINTAIN SOLID WASTE FACILITIES
21.	The Licensee shall undertake measures necessary to prevent the spread of windblown Waste to the areas surrounding the Solid Waste Disposal Facilities.	PREVENT WINDBLOW WASTE
22.	The Licensee shall contain all Hazardous materials in such a manner as to minimize the potential for migration of contaminants into any Waters, to the satisfaction of an Inspector.	CONTAIN HAZARDOUS WASTE
23.	The Licensee shall not openly burn solid or liquid Waste, except in accordance with the guideline <i>"Municipal Solid Wastes Suitable for Open Burning"</i> , developed by the Government of Northwest Territories (GNWT) - Department of Environment and Natural Resources.	WASTE BURNING
24.	The Licensee shall inform the Board and Inspector at least 24 hours prior to the burning of any Waste	NOTIFICATION OF WASTE BURNING
25.	The Licensee shall comply with the Water Treatment Facilities Operation and Maintenance Plan , once approved.	WATER TREATMENT FACILITIES OPERATION AND MAINTENANCE PLAN
26.	Within ninety (90) days following the effective date of this Licence, the Licensee shall submit to the Board, for approval, a revised Water Treatment (or Treatment) Facilities Operation and Maintenance Plan . The Plan shall be in accordance with the requirements of Schedule 3 Condition 3.	WATER TREATMENT FACILITIES

		OPERATION AND MAINTENANCE PLAN - REVISED
	Part G: Aquatic Effects Monitoring	
	<i>Section Left Intentionally Blank</i>	
	Part H: Spill Contingency Planning	
1.	The Licensee shall ensure that Unauthorized Discharges associated with the Project do not enter any Waters.	OBJECTIVE – PREVENT WASTE INTO WATER
2.	The Licensee shall comply with the Spill Contingency Plan , once approved.	SPILL CONTINGENCY PLAN
3.	Within ninety (90) days following the effective date of this Licence the Licensee shall submit to the Board, for approval, a revised Spill Contingency Plan .	SPILL CONTINGENCY PLAN – REVISED
4.	<p>If a spill or an Unauthorized Discharge occurs or is foreseeable, the Licensee shall:</p> <p>a) Implement the approved Spill Contingency Plan referred to in Part H, Condition x;</p> <p>b) Report it immediately using the NU-NT Spill Report Form by one of the following methods:</p> <ul style="list-style-type: none"> • Telephone: (867) 920-8130 • Fax: (867) 873-6924 • E-mail: spills@gov.nt.ca • Online: Spill Reporting and Tracking Database <p>c) Notify the Board and an Inspector immediately; and</p> <p>d) Within 30 days of initially reporting the incident, or within a timeframe authorized by an Inspector, submit a detailed report to the Board and an Inspector, including descriptions of causes, response actions, and any changes to procedures to prevent similar occurrences in the future. Written notification shall be provided to the Board and an Inspector if any changes occur.</p>	REPORT SPILLS

5.	The Licensee shall ensure that spill prevention infrastructure and spill response equipment is in place prior to commencement of the Project.	SPILL PREVENTION AND RESPONSE EQUIPMENT
6.	The Licensee shall restore all areas affected by spills and Unauthorized Discharges to the satisfaction of an Inspector.	CLEAN UP SPILLS
Part I: Closure and Reclamation		
1.	The Licensee shall endeavor to carry out approved Progressive Reclamation as soon as is reasonably practicable.	PROGRESSIVE RECLAMATION
2.	A minimum of six months prior to the closure and reclamation of any specific facility included in the scope of the Licence, the Licensee shall submit to the Board, for approval, a facility-specific Closure and Reclamation Plan . The Plan shall be in accordance with Schedule 3.	FACILITY-SPECIFIC CLOSURE AND RECLAMATION PLAN

Schedule 1 Annual Water Licence Report

	Condition
1.	The Annual Water Licence Report referred to Condition ANNUAL REPORT of this Licence shall include, but not be limited to, the following information about activities conducted during the previous calendar year:
	a) The monthly and annual quantities in cubic metres of fresh Water obtained from all sources, as required in Part D, Condition 1 of this Licence;
	b) A summary of the calibration and status of the meters and devices referred to in Part B, Condition 18 of this Licence;
	c) A summary of Construction activities conducted in accordance with Part E of this Licence;
	d) A summary of major maintenance activities conducted in accordance with this Licence;
	e) Monthly and annual quantities, in cubic metres, of all Sewage and solid Waste deposited into the Waste Disposal Facilities, identified by disposal location;
	f) Monthly and annual quantities, in cubic metres, of all Sewage and solid Waste deposited into the Waste Disposal Facilities by commercial and industrial operators working outside the municipal boundaries of Tsiigehtchic;
	g) Monthly and annual quantities, in cubic metres, of all Sewage and solid Waste removed from the Waste Disposal Facilities, identified by disposal location;
	h) A summary of sludge management activities, including results of depth and volume measurements, sludge removal, and treatment;
	i) A summary of activities undertaken to install and maintain fencing at the Waste Disposal Facilities;
	j) A summary of activities conducted in accordance with the approved Spill Contingency Plan , referred to in Part H, Condition 2 of this Licence, including: <ul style="list-style-type: none"> i. A list and description for all Unauthorized Discharges, including the date, NWT spill number, volume, location, summary of the circumstances and follow-up actions taken, and status (i.e. open or closed), in accordance with the reporting requirements in Part H, Condition 4 of this Licence; and ii. An outline of any spill training carried out.

	A summary of any updates or revisions to the Spill Contingency Plan, Engagement Plan, and/or Operation and Maintenance Plans, conducted under the Annual Review referred to in Part B Condition 9.
	k) A summary of engagement activities conducted in accordance with the approved Engagement Plan, referred to in Part B, Condition 20 of this Licence
	l) A summary of how any Traditional Knowledge, referred to in Part B Condition 4, was incorporated into decision making;
	m) A summary of any Progressive Closure and Reclamation, referred to in Part I, Condition1;
	n) Tabular summaries of all data and information generated under the SNP annexed to this Licence, in Excel format;
	o) A list of any non-compliance(s) with the conditions of this Licence or any directive from the Board pursuant to the conditions of this Licence;
	p) A summary of results and any action taken as a result of any inspections;
	q) A summary of actions taken to address concerns, non-conformances, or deficiencies in any reports filed by an Inspector;
	r) A summary of any studies requested by the Board that relate to Waste disposal, Water Use or Reclamation, and a brief description of any future studies planned.
	s) Any other details requested by the Board by December 31 of the year being reported.

Schedule 2 Design and Construction Plan

	Condition
1.	<p>The Design and Construction Plan(s) referred to in Condition DESIGN AND CONSTRUCTION PLAN shall include, but not be limited to, the following:</p> <p>a) Information regarding the design of the facilities:</p> <ol style="list-style-type: none"> i. A description of the facilities to be constructed; ii. The proposed location(s) of the facilities, with GPS coordinates and a map to scale; iii. Relevant background information for the area beneath the footprint of the facilities, as deemed adequate by the Professional Engineer responsible for the design, including, but not limited to: the results and data from geotechnical and geochemical investigations; hydrogeological investigations; and programs to characterize soil, rock, Groundwater, ground ice, and ground temperature conditions to the depth expected to be affected by the facilities; iv. A design alternatives analysis; v. Design specifications and performance parameters; vi. Stability analyses; vii. A description of how the design has been optimized for Closure and Reclamation; viii. A description of how climate change projections and considerations have been incorporated into the design; ix. A description of any instrumentation that will be installed as part of the facilities, including locations and rationale; and x. A description of any operations and maintenance requirements associated with the design of the facilities. <p>b) Information regarding the Construction of the facilities:</p> <ol style="list-style-type: none"> i. A Construction schedule, including sequencing information; ii. A description of the materials recommended for Construction, including, but not limited to: <ul style="list-style-type: none"> • sources; • quantities;

	<ul style="list-style-type: none">• physical characteristics; and• geochemical characteristics. <p>iii. A description of any potential effects on the Receiving Environment associated with Construction of the facilities; and</p> <p>iv. A description of any mitigation measures that will be undertaken to minimize the potential impacts identified above.</p> <p>c) Information regarding monitoring during Construction, including:</p> <ul style="list-style-type: none">i. A description of any monitoring that will be conducted to detect potential impacts to the Receiving Environment and evaluate the effectiveness of the mitigation measures described above; <p>d) Information regarding responses to monitoring results during Construction, including:</p> <ul style="list-style-type: none">i. Definitions, with rationale, for Action Levels applicable to the performance of the mitigation measures;ii. and For each Action Level, a description of how exceedances of the Action Level will be assessed and, generally, which types of actions may be taken by the Licensee if the Action Level is exceeded. <p>e) A Quality Control Plan stamped by a Professional Engineer, a component of which includes a plan for a Professional Engineer to supervise and field check Construction activities.</p>
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Schedule 3 Waste and Water Management

	Condition
1.	<p>The Sewage Disposal Facilities (SDF) Operation and Maintenance Plan referred to in Condition SEWAGE DISPOSAL FACILITIES OPERATION AND MAINTENANCE PLAN – REVISED shall include but not be limited to:</p> <ul style="list-style-type: none"> a) Site Description: <ul style="list-style-type: none"> i. Facility design details, including current figures; ii. Location, including GPS coordinates and map(s); iii. Date of commissioning; iv. Local ground conditions and permafrost considerations; v. Details and frequency of typical operation, maintenance and monitoring activities; and vi. Closure and Reclamation planning and post-closure monitoring; b) SDF Staff; <ul style="list-style-type: none"> i. Facility staff contact information; and ii. Staff Training; c) Security and Control <ul style="list-style-type: none"> i. Control of public access; and ii. Signage; d) Wastewater Generation and Conveyance: <ul style="list-style-type: none"> i. System details, including maps; ii. Volume and frequency of influent deposits; and iii. How unacceptable substances are kept out; e) Influent Wastewater Quality;

- f) System Capacity and Design Data:
 - i. System design details, including flow volumes; and
 - ii. Effluent Quality Criteria for which the system was designed;

- g) Effluent Discharge:
 - i. Frequency, rate and timing of discharge;
 - ii. Discharge location and Receiving Environment details; and
 - iii. Discharge notification(s);Frequency, rate and timing of discharge;

- h) Sludge Management:
 - i. Characterization and production rate of sludge;
 - ii. Method of sludge containment and de-watering including;
 - a. Site location and maintenance;
 - b. Sludge removal method; and
 - c. Sludge drying;

- i) Sludge Disposal;
 - i. Sampling procedure and approvals;
 - ii. Planned uses; and
 - iii. Disposal location(s) and details;
 - a. Future desludging events and reporting; and
 - b. Figures showing site features and layout;

- j) Surface Water Management;

- k) Record keeping:
 - i. Forms used for Record Keeping;
 - ii. Reporting requirements for all aspects of the SDF; and
 - iii. Locations of records;

	<p>l) Water Quality Monitoring/Surveillance Network Program:</p> <ul style="list-style-type: none"> i. Locations; ii. Standard sampling procedures; and iii. Background water quality information; <p>m) Site inspection templates (daily, weekly, monthly and annual).</p>
<p>2.</p>	<p>The Solid Waste Disposal Facilities (SWDF) Operation and Maintenance Plan referred to in Condition SOLID WASTE DISPOSAL FACILITIES OPERATION AND MAINTENANCE PLAN – REVISED shall include but not be limited to:</p> <ul style="list-style-type: none"> a) Site Description; <ul style="list-style-type: none"> i. Facility design details, including current figures; ii. Location, including GPS coordinates and map(s); iii. Date of commissioning; iv. Local ground conditions and permafrost considerations; v. Details and frequency of typical operation, maintenance and monitoring activities; and vi. Closure and Reclamation planning and post-closure monitoring. b) SWDF Staff; <ul style="list-style-type: none"> i. Facility staff contact information; and ii. Staff Training. c) Security and Control; <ul style="list-style-type: none"> i. Control of public access; and ii. Signage d) Facility Operations; <ul style="list-style-type: none"> i. Hours/Days of Operation; ii. Hazardous Waste Reception and Transfer; and iii. Equipment Used;

- e) Facility Design;
 - i. Drawings; and
 - ii. Surface Water/Leachate Design;
- f) Accepted Materials;
- g) Waste Generation and Site Capacity;
- h) Community Waste Collection and Handling;
- i) Waste Screening;
- j) Unacceptable Wastes;
- k) Record-Keeping for Unacceptable Wastes;
- l) Landfilling Operations;
 - i. Compaction practices and frequencies;
 - ii. Intermediate cover sources, practices and frequencies; and
 - iii. Final cover sources, practices and frequencies;
- m) Litter and Wildlife Control;
 - i. Controls; and
 - ii. Response plans to wildlife on site;
- n) Surface Water Management;
 - i. Surface Water and ponded water Inspections;
 - ii. Methods for erosion prevention and repair;
 - iii. Leachate management;

- o) Record-Keeping;
 - i. Forms used for Record Keeping;
 - ii. Reporting requirements for all aspects of the SWDF; and
 - iii. Locations of records;
- p) Inspection and Monitoring;
 - i. Daily/Weekly/Monthly Inspections;
 - ii. Annual Inspections; and
 - iii. Inspection Forms;
- q) Hazardous Waste Management;
 - i. Specific practices for each Waste Type
 - ii. Contact Person
 - iii. Details regarding the management of all new and existing Hazardous Waste including:
 - the design of a Temporary Hazardous Waste Containment Area
 - detailed amounts and sources of Hazardous Waste that are, and are not accepted into the Solid Waste Disposal Facilities;
 - a Hazardous Waste inventory that identifies the type, means of containment, and quantity of all Hazardous Waste being stored in the Temporary Hazardous Waste Containment Area; and
 - location, timing and means of transport of all Hazardous Waste to an approved Hazardous Waste Disposal Facility.
- r) Tipping Fees;
- s) Surveillance Network Program;
- t) Emergency Planning;
- u) Document References; and
- v) The Following information as directed by the Board
 - i. Methods for the management of metal and recyclable materials, including the methods for the removal of refrigerants and fluids from discarded appliances and scrap vehicles.
 - ii.

3.	<p>The Water Treatment Plant Operation and Maintenance Plan, referred to in Condition WATER TREATMENT PLANT OPERATION AND MAINTENANCE PLAN – REVISED of this Licence shall include, but not be limited to:</p> <ul style="list-style-type: none"> a) Site description; <ul style="list-style-type: none"> i. Location of all facility components, including GPS coordinates and maps; ii. Date of commissioning; and iii. Details and frequency of typical operation, maintenance and monitoring activities; b) Facility staff contact information; c) Security and control; <ul style="list-style-type: none"> i. Control of public access; and ii. Signage; d) Facility design details, including current figures; e) Raw water sources; <ul style="list-style-type: none"> i. Detailed characteristics; ii. Withdrawal flow rates; iii. Reservoir storage details; iv. Intake description and details; and v. Source water protection; f) Water treatment process; <ul style="list-style-type: none"> i. Description of pre-treatment and treatment technologies and chemicals used; ii. Details regarding water demand, production and distribution; and iii. Annual water usage and treated water storage capacity; g) Water Treatment Plant Residuals; <ul style="list-style-type: none"> iii. Sludge; iv. Sampling procedures; v. Chemical composition data;

	<ul style="list-style-type: none">vi. Volume produced; andvii. Disposal frequency, location and details; <p>h) Backwash:</p> <ul style="list-style-type: none">i. Sampling procedures;ii. Chemical composition data;iii. Approximate volume produced, with rationale;iv. Disposal frequency, location and details; andv. Identification of sampling location; and <p>i) Facility operation, maintenance and record-keeping.</p>
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Schedule 4 Closure and Reclamation Plans

	Condition
1.	<p>With regard to Solid Waste Disposal Facilities being closed, the Facility Specific Closure and Reclamation Plan referred to in Part I, Condition 2, shall address the relevant sections of Environment and Climate Change Canada’s <i>Solid Waste Management for Northern and Remote Communities: Planning and Technical Guidance Document</i>, and shall include, but not be limited to:</p> <ul style="list-style-type: none"> a) A description of the waste(s) composition, placement, volume and tonnage that will remain in the landfill cell, and scaled drawings showing maximum final height of disposal; b) Final cover design, including type and source of cover materials, installation, thickness, permeability, drainage layers, topsoil, vegetative cover, and erosion prevention controls; c) As-built drawings for all facilities, components and installations, including an accurate plot plan, geographic positioning system coordinates and permanent location markers; d) Mapping of all disturbed areas, borrow material areas, and site facilities; e) Final survey to mark designated areas, monitoring wells and/or surface water monitoring locations; f) Site regrading to facilitate storm water management; g) Soil testing in areas where waste was processed or stored (e.g., hazardous and special waste, end-of-life vehicles, bulky waste); h) Appropriate disposal of any waste stored aboveground at the site (e.g., hazardous and special waste, end-of-life vehicles, bulky waste); i) Contaminated site remediation, if required; j) Removal of infrastructure and equipment; k) Post-closure leachate prevention and management; l) landfill gas management, if required; m) Final cover monitoring for stability, erosion and settlement; n) A monitoring plan for surface water and/or groundwater, and erosion and settlement for a minimum post-closure period of 30 years o) Post-closure infrastructure requirements;

	<ul style="list-style-type: none"> p) Post-closure operations and maintenance (e.g., cover maintenance, vegetation monitoring, storm water management infrastructure maintenance); q) Contingency plans for fire, illegal dumping and nuisance control post decommissioning r) Implementation schedule; s) Procedures for notifying the public of the facility closure and alternative disposal facilities; t) Restricting access to the site once closed and removal of any waste that may have been deposited following closure; and u) Future land use goal.
2.	<p>With regard to Sewage Disposal Facilities being closed, the Facility Specific Closure and Reclamation Plan referred to in Part I, Condition 2, shall include, but not be limited to:</p> <ul style="list-style-type: none"> a) Logistical considerations; b) Intended future use of the land after closure; c) Remediation of contaminated material; d) As-built drawings of the entire sewage treatment Facilities, including an accurate plot plan, e) Geographic positioning systems coordinates, and permanent location markers; f) Soil testing results from lagoon and wetland areas; g) Contaminated site Remediation, if required, such as removal of contaminated soil from unlined lagoon and wetland; h) Removal of equipment and structures that will not be used during the closure phase; i) Consideration for altered drainage patterns; j) Choice of capping material, and availability; k) Cover monitoring for stability, erosion, and settlement; l) Post-closure monitoring plan of sludges, sediments, surface water, Groundwater, and erosion to ensure that the site does not pose unacceptable risks to human or environmental health; m) Environmental management systems (if necessary) for leachate, Groundwater, and surface water; and n) Signage installation indicating closure in progress, and Facilities no longer accepting sewage.

Annex A: Surveillance Network Program (SNP)

Table of Contents:

Part A: Reporting Requirements

Part B: Sampling and Analysis Requirements

Part C: Surveillance Network Program Station Descriptions

Part A: Reporting Requirements

1. The effective date of this Surveillance Network Program (SNP) is May 9, 2022.
2. The Licensee shall include all of the data and information required in Part C of this Annex in the Annual Water Licence Report, as specified in Condition ANNUAL WATER LICENCE REPORT of this Licence.
3. The Licensee shall also provide SNP data at other times, if requested by an Inspector or the Board.

Part B: Sampling and Analysis Requirements

1. More frequent sample collection or provision of data may be required at the request of an Inspector.
2. The location of sampling stations is subject to the approval of an Inspector. The Licensee shall work with an Inspector to determine suitable locations for sampling stations.
3. All sample collection, sample preservation, and analyses shall be conducted in accordance with methods prescribed in the current edition of American Public Health Association's (APHA) Standard Methods for the Examination of Water and Wastewater at the time of analysis, or by other such methods approved by an Analyst.
4. All analyses shall be performed in a laboratory accredited by the Canadian Association for Laboratory Accreditation (CALA) for the specific analyses to be performed or as approved by an Analyst.

Part C: SNP Station Descriptions and Monitoring Requirements

SNP station	Location	Coordinates	Sampling Frequency	Sampling Parameters
1557 -3	Raw Water Supply, Ts'oh Vàn Lake	67.42361, -133.71166	Monthly	The Monthly and Annual quantities withdrawn at SNP Station 1557-3 shall be measured in cubic meters.
1557 - 4	Sewage effluent from "E" Lake (at point of outflow)	67.44639, - 133.71027	Twice annually, after break up and before freeze up.	<ul style="list-style-type: none"> • Ammonia Nitrogen • BOD5 • Fecal Coliform • pH • Total Suspended Solids • Oil and Grease • Total Phenols • Total Cadmium • Total Chromium • Total Cobalt • Total Copper • Total Manganese • Total Nickel • Total Lead • Total Iron • Total Zinc • Total Mercury
1557 - 5	Outflow from wetland "C" into Mackenzie River	67.45000, -133.71666	Annually, during periods of flow	<ul style="list-style-type: none"> • Ammonia Nitrogen • BOD5 • Fecal Coliform • pH

				<ul style="list-style-type: none"> • Total Suspended Solids • Oil and Grease
1557 - 6	Run-off from Landfill to "E" Lake during times of overland flow	67.44555, -133.71138	Monthly, during periods of flow	<ul style="list-style-type: none"> • Ammonia Nitrogen • BOD5 • Fecal Coliform • pH • Total Suspended Solids • Oil and Grease • Total Phenols • Total Cadmium • Total Chromium • Total Cobalt • Total Copper • Total Manganese • Total Nickel • Total Lead • Total Iron • Total Zinc • Total Mercury

Signed on behalf of the Gwich'in Land and Water Board



Elizabeth Wright, Chair



AlecSandra Macdonald Witness

Annex B: Concordance Table

Annexed to Water Licence G22L3-001 - Items Requiring Submission

This table summarizes the information the Licensee is required to submit as per the Water Licence conditions. It supplements the Water Licence. If there are any discrepancies between this table and the body of the Water Licence, the Water Licence conditions prevail.

Table 1: Concordance Table of Items Requiring Submission

Condition	Requirement	Submission Timeline
ANNUAL REVIEW (B.9)	Conduct an annual review of all plans, programs, manuals, and studies and make any revisions necessary to reflect changes in operations, contact information, or other details.	No later than March 31 each year.
REVISIONS (B.10)	Submit revised plans, programs, manuals, and studies to the Board, for approval.	A minimum of 90 days prior to the proposed implementation date for the changes.
REVISE SURVEILLANCE NETWORK PROGRAM (B.15)	Submit Proposal to Revise the Surveillance Network Program	Within one year of Licence Issuance.
ANNUAL WATER LICENCE REPORT (B.20)	Submit an Annual Water Licence Report to the Board and an Inspector, in accordance with the requirements of Schedule 1, Condition 1.	Beginning March 31, 2023, and no later than every March 31 thereafter.
ENGAGEMENT PLAN (B.21)	Submit an Engagement Plan to the Board for Approval.	Within ninety (90) of Licence Issuance.
NOTIFICATION – NON-COMPLIANCE (B.22)	Notify Board and Inspector of any non-compliance with the Licence	Immediately
DESIGN AND CONSTRUCTION PLAN (E.5)	Submit to the Board, for approval, a Design and Construction Plan , in accordance with the requirements of Schedule 2, Condition 1.	A minimum of 90 days prior to the commencement of Construction of any Engineered Structures.
DESIGN DRAWINGS (E.6)	Submit to the Board, Design Drawings stamped and signed by a Professional Engineer.	A minimum of 90 days prior to the commencement of Construction of any Engineered Structures.

Condition	Requirement	Submission Timeline
NOTIFICATION – CONSTRUCTION (E.7)	Provide written notification to the Board and an Inspector.	A minimum of ten days prior to the commencement of Construction of any Engineered Structure(s).
AS-BUILT REPORT – ENGINEERED STRUCTURE(S) (E.9)	Submit to the Board, an As-Built Report stamped and signed by a Professional Engineer.	Within 90 days of the completion of the Construction of each Engineered Structure.
SEWAGE DISPOSAL FACILITIES OPERATION AND MAINTENANCE PLAN – REVISED (F.8)	Submit to the Board, for approval revised Sewage Disposal Facilities Operation and Maintenance Plan in accordance with the requirements of Schedule 3, Condition 1.	Within ninety (90) of Licence Issuance.
ANNUAL INSPECTION OF SEWAGE DISPOSAL FACILITIES (F.11)	Conduct an Inspection of the Sewage Disposal Facilities.	Annually
DECANT NOTIFICATION – SEWAGE DISPOSAL FACILITIES (F.14)	Notify an Inspector and the Board prior to initiating decant of the Sewage Disposal Facilities.	At least ten days prior to initiating decant.
SLUDGE REMOVAL – NOTIFICATION (F.16)	Submit analytical results and written notification to the Board and an Inspector.	A minimum of 10 days prior to the removal of sludge from the Sewage Disposal Facilities for re-use.
SOLID DISPOSAL FACILITIES OPERATION AND MAINTENANCE PLAN – REVISED (F.19)	Submit to the Board, for approval, a revised Solid Waste Disposal Facilities Operation and Maintenance Plan , in accordance with the requirements of Schedule 3, Condition 2.	Within ninety (90) of Licence Issuance.
NOTIFICATION OF WASTE BURNING (F.24)	Inform the Board and Inspector prior to burning waste.	A minimum 24 hours prior to commencement of burning.
WATER TREATMENT FACILITIES OPERATION AND MAINTENANCE PLAN – REVISED (F.26)	Submit to the Board, for approval, a revised Water Treatment Facilities Operation And Maintenance Plan in accordance with the requirements of Schedule 3, Condition 13.	Within ninety (90) of Licence Issuance.
SPILL CONTINGENCY PLAN – REVISED (H.3)	Submit to the Board, for approval, a revised Spill Contingency Plan .	Within ninety (90) of Licence Issuance.
FACILITY-SPECIFIC CLOSURE AND RECLAMATION PLAN (I.2)	Submit to the Board, for approval, a Component-Specific Closure And Reclamation Plan accordance with the requirements of Schedule 3	Six months prior to commencing Closure and Reclamation of any component of the Sewage Disposal Facilities.

Annex C
Revision History table

Table 1: Updates and changes that have been made to Licence G22L3-001 since issuance.

Date	Location of Change	Description of Change



105 Veterans Way
PO Box 2018, Inuvik NT X0E 0T0

Tel: 867-777-4954 Fax 867-777-2304
www.glwb.com

Reasons for Decision

Issued pursuant to section 72.25 of the *Mackenzie Valley Resource Management Act* (MVRMA) and subsection 26(1) of the *Waters Act*.

Water Licence Application	
File Number	G22L3-001
Company	Charter Community of Tsiigehtchic
Project	Type B Municipal Wate Licence Renewal
Location	Tsiigehtchic, NT
Activity	Municipal Waste Deposit and Water Use
Date of Decision	May 9, 2022

Table of Contents

1.0	DECISION	3
2.0	REGULATORY PROCESS	4
2.1	Summary of Application.....	4
2.2	Steps in Proceeding.....	Error! Bookmark not defined.
3.0	REASONS FOR DECISION - Legislative Requirements Related to Licence Issuance	6
3.1	Consultation, Engagement, and Public Notice.....	6
3.2	Land Use Plan Conformity.....	7
3.3	Water Use Fees	7
3.4	Existing Licences.....	8
3.5	Compensation to Existing Water Users	8
3.6	Water Quality Standards.....	8
3.7	Effluent Quality Standards	8
3.8	Financial Responsibility	9
3.9	Minimization of Adverse Effects	9
3.10	Time Limit.....	9
3.11	Preliminary Screening	10
4.0	REASONS FOR DECISION – Licence Terms and Conditions	11
4.1	Term of Licence	12
4.2	Part A: Scope and Defined Terms	12
4.2.1	Scope.....	12
4.2.2	Defined Terms.....	13
4.3	Part B: General Conditions and Schedule 1	13
4.4	Part C: Conditions Applying to Security Requirements.....	15
4.5	Part D: Conditions Applying to Water Use.....	16
4.6	Part E: Conditions Applying to Construction and Schedule 2	16
4.7	Part F: Conditions Applying to Waste and Water Management and Schedule 3	16
4.8	Part H: Conditions Applying to Contingency Planning	20
4.9	Part I: Conditions Applying to Closure and Reclamation and Schedule 4.....	21
4.10	Annex A: Surveillance Network Program	21
4.11	Annex B: Table of Submissions	22
4.12	Annex C: Table of Revision History	23
5.0	Conclusion	23

1.0 DECISION

On May 9, 2022 the Gwich'in, Land and Water Board (GLWB or Board) met and considered the Application made by the Charter Community of Tsiigehtchic (Applicant) to the Board for Water Licence G22L3-001 for the use of water and the deposit of waste for municipal purposes. After reviewing the Application and the evidence gathered during the regulatory proceeding, the Board has made the following decisions:

- 1) To issue Water Licence G22L3-001 for a term 5 years;
- 2) To not approve Version 1.0 of the Solid Waste Disposal Facilities Operations and Maintenance Plan, and to require that the Applicant submit Version 1.1 of the Plan within ninety (90) days of the effective date of the Licence;
- 3) To not approve Version 1.0 of the Sewage Waste Disposal Facilities Operations and Maintenance Plan, and to require that the Applicant submit Version 1.1 of the Plan within ninety (90) days of the effective date of the Licence;
- 4) To not approve Version 1.0 of the Water Treatment Facilities Operations and Maintenance Plan, and to require that the Applicant submit Version 1.1 of the Plan within ninety (90) days of the effective date of the Licence; and
- 5) To not approve Version 1.0 of the Spill Contingency Plan, and to require that the Applicant submit Version 1.1 of the Plan within ninety (90) days of the effective date of the Licence.

These Reasons for Decision set out the Board's regulatory process for the Application and rationale for decisions regarding the Licence.

to April 22, 2022. The request was granted and on April 22, 2022, the Applicant responded to the Parties' comments and recommendations.⁷

On May 9, 2022 the Board met to make decisions regarding the Application. These decisions and related reasons are described in sections [3.0](#) and [4.0](#), below.

3.0 REASONS - Legislative Requirements Related to Licence Issuance

This Project is located on non-federal lands and is subject to the [MVRMA](#), the [Waters Act](#), and the [Waters Regulations](#). As per the [Waters Regulations](#) the proposed use of water and the deposit of waste for this Project require a licence. Accordingly, the Board has jurisdiction to issue the Licence per subsection 60(1.1) and section 102 of the [MVRMA](#).

In conducting its regulatory process for the Application (as described in section 2.0 above), the Board has ensured that section 62 of the [MVRMA](#) and all applicable legislative requirements have been satisfied as outlined in the subsections below. The Board has considered the people and users of the land and water in the Mackenzie Valley, and any Traditional Knowledge and scientific information that was made available to the Board during the regulatory proceeding, as per section 60.1 of the [MVRMA](#). The consideration of information provided to the Board is discussed in detail below and in section 4.0.

3.1 Consultation, Engagement, and Public Notice

As per paragraph 60.1(a) of the [MVRMA](#), in exercising its authority, the Board must consider the importance of conservation to the well-being and way of life of Indigenous peoples of Canada, specifically those to whom section 35 of the *Constitution Act, 1982*, applies and who use an area of the Mackenzie Valley. Accordingly, the Board works with applicants, affected parties (including Indigenous governments and organizations), and other parties (such as other boards and regulators) to ensure that potential impacts of proposed projects, including impacts on rights under section 35, are understood and carefully considered before decisions are made with respect to the issuance of permits and licences.

The Board's requirements for engagement are set out in the MVLWB [Engagement and Consultation Policy](#) and [Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits](#). The Policy and Guidelines were developed to ensure that the Board's obligations for achieving

⁷ See GLWB Online Registry for [G22L3-001 - Tsiigehtchic Municipal WL - Reviewer Comments on Draft Licence and Proponent Responses - Mar14 22](#)

meaningful consultation (as set out by land claims and applicable legislation) with all affected parties, including Indigenous groups in the Mackenzie Valley, are met and engagement and consultation results clearly articulated.

As per the Gwich'in Comprehensive Land Claim Agreement (GCLCA) 12.4.10 (a), the Gwich'in have the right of access to all lands within the settlement area for the purpose of harvesting, with some exceptions, including (per GCLCA 12.4.12) tenured parcels of land within municipal boundaries.⁸ Typically, activities within municipal disturbances, such as Municipal water licences renewals, do not trigger the requirements for pre-application engagement. However, during the Public review of Application G22L3-001, GTC DLR commented that there may be users of Tsoh Vahn and/or other community members who may wish be engaged with respect to Project. GTC DLR recommended that engagement take place.⁹

The Board has subsequently included condition B.22, ENGAGEMENT PLAN requiring the community to undertake engagement, and submit to the Board for approval an Engagement Record and Plan.

In accordance with sections 63 and 64 of the [MVRMA](#), the Board is satisfied that notice of and access to copies of the Application were provided, and that a reasonable amount of time was given to communities, First Nations, and the public to participate in this proceeding and make submissions to the Board.

3.2 Land Use Plan Conformity

As per section 61 of the [MVRMA](#), where an approved Land Use Plan (GLUP) applies, the Board must confirm conformity with the Land Use Plan before issuing a permit or licence.

The Gwich'in Land Use Plan (GLUP) considers all lands within the Gwich'in Settlement Area.¹⁰ However, in accordance with Section 3.3 of the Plan, the GLUP does not apply to lands within the boundaries of a municipal government. The Board is thus satisfied that its referral obligations to the GLUP have been satisfied.

3.3 Water Use Fees

There are no water use fees set out in the [Waters Regulations](#) for municipal water use. The Board has thus determined that the Charter Community is exempt from water use fees.

⁸ See rcaanc-cirnac.gc.ca for [Gwich'in Comprehensive Land Claim Agreement – Volume 1](#)

⁹ See GLWB Online Registry for [G22L3-001 - Tsiigehtchic Municipal WL - Reviewer Comments on Application and Proponent Responses - Mar14 22](#)

¹⁰ See gwichinplanning.nt.ca for [Nanh' geenjit gwitr'it t'igwaa'in/Working for the Land - Gwich'in Land Use Plan](#)

3.4 Existing Licences

During the time period established in the Notice of Application, no licensees or applicants contacted the Board to identify potential effects from the Project on other projects, and there are no other applicants with precedence. Accordingly, with respect to paragraph 26(5)(a) of the [Waters Act](#), Board is satisfied that issuing the Licence to the Applicant will not adversely affect, in any significant way, any existing licensee or any other applicant, provided the Applicant complies with the conditions of the Licence.

3.5 Compensation to Existing Water Users

Paragraph 26(5)(b) of the [Waters Act](#) prohibits the issuance of the Licence unless the Board is satisfied that appropriate compensation has been or will be paid by the Applicant to persons who would be adversely affected by the use of waters, or deposit of waste proposed by the Applicant, at the time when the Applicant filed the Applications with the Board.

The Board received no claims for compensation either during the time period established in the Notice of Application, or during the remainder of the proceeding. Provided the Applicant complies with the Licence conditions, the Board is satisfied there are no water users or persons listed in paragraph 26(5)(b) of the [Waters Act](#) who will be adversely affected by the proposed use of waters or deposit of waste.

3.6 Water Quality Standards

With regards to subparagraph 26(5)(c)(i) of the [Waters Act](#) no water quality standards have been prescribed in the [Waters Regulations](#); however, the MVLWB [Water and Effluent Quality Management Policy](#) applies to the Licence, and the primary objective of the Policy is “protection of water quality in the receiving environment.” This objective is directly reflected in the Licence Condition OBJECTIVE – WATER AND WASTE MANAGEMENT, and in accordance with the Policy and this objective, the Board has set out conditions in the Licence regarding effluent quality criteria, water and waste management, and management plan requirements.

The Board is satisfied that the conditions set out in the Licence are consistent with the Policy and compliance with these conditions will ensure that waste will be collected and disposed of in a manner that will be protective of water quality in the receiving environment. These conditions and detailed rationale are described in Section 4.

3.7 Effluent Quality Standards

With regards to subparagraph 26(5)(c)(ii) of the [Waters Act](#) no effluent quality standards have been prescribed in the [Waters Regulations](#); however, as noted in section 5.9 above, the MVLWB [Water and Effluent Quality Management Policy](#) applies to the Licence. In the absence of prescribed standards, the Policy sets out when and how the Board will include EQC in a licence to protect water quality in the receiving environment, and Appendix 2 of the MVLWB/GNWT [Guidelines for Mixing Zones](#) describes the

general principles and standard process the Land and Water Boards (LWBs) will apply in setting EQC for a project. The Board established the EQC for the Project based on both the evidence gathered during the proceeding and in accordance with the Policy and the principles and processes described in the Guidelines. Accordingly, the Board is satisfied that compliance with these criteria and associated conditions will ensure that effluent from the Project is disposed of in a manner that will be protective of water quality in the receiving environment. These conditions and criteria, and detailed rationale, are further discussed below in Section 4.

3.8 Financial Responsibility

As per paragraph 26(5)(d) of the [Waters Act](#), before the Board can issue the Licence, it must be satisfied that the Applicant's financial responsibility is adequate to complete the Project, including any required mitigation measures, and the closure and reclamation of the site.

The Applicant is a public government, and the Board is confident that the Applicant is capable of meeting any financial obligations set out in the [Waters Act](#) and Licence.

As a result, and for the reasons set out above, the Board is satisfied that the legislated requirement to establish the financial responsibility of the Applicant for the Project has been met.

3.9 Minimization of Adverse Effects

With regards to subsection 27(2) of the [Waters Act](#), the Board must ensure that the Licence conditions minimize potential adverse effects on other water and land users from the proposed use of water and deposit of waste.

The Board has set conditions in the Licence to regulate waste management for the purpose of protecting the receiving environment, and it has also set conditions regarding the use of water for the Project, including limitations on the sources and volumes of water the Licensee can use.

The Board notes that its regulatory process provides opportunities for potentially affected parties to make submissions to the Board, and that the Board did not receive notice of potentially adverse effects on other users of the water and lands in the Project area.

It is the opinion of the Board that compliance with the Licence conditions that have been set to protect the water sources and the receiving environment will also minimize any potential adverse effects on other water and land users in the Project area.

3.10 Time Limit

As required under section 48(1) of the [Waters Act](#), the Board made its decision on the Licence within nine months after receiving the complete Application.

standard condition included in the Licence is only discussed in detail in the following sections of these Reasons for Decision when it specifically relates to concerns or recommendations raised during the regulatory proceeding. The Board's reasons for developing and including Project-specific conditions, including discussion of any concerns and recommendations raised regarding these conditions, are detailed in the relevant sections below.

4.1 Term of Licence

The Applicant has applied for a Licence term of ten years. Subsection 26(2) of the [Waters Act](#) allows for a licence term of not more than 25 years for a type B licence. In the past, the GLWB has granted five-year licence terms to Tsiigehtchic (2000 and 2016) a ten-year term (2005), and a one 1-year term (2015). Across the NWT Type B municipal licences are typically issued for five, and sometime ten years.

During the public review, ECC commented that because the capacity end-date for the solid waste disposal facilities occurs within the proposed 10-year water licence term, it will be important to include expansion and closure elements in the water licence, including relevant management plans.¹³

The Board has considered the Community's historic challenges with compliance, the possibility for climate-driven changes to the receiving environment, and the need to regularly re-visit authorizations to ensure that they are meeting the Board's mandate objectives of "conservation, development and utilization of land and water resources in a manner that will provide the optimum benefit for residents."

After reviewing the submissions made during this regulatory process, the Board has determined an appropriate term for the Licence 5 years.

4.2 Part A: Scope and Defined Terms

Part A of the Licence contains the scope and the defined terms used throughout the Licence.

4.2.1 Scope

The scope of the Licence is written to ensure the Licensee is entitled to conduct activities which have been applied for and have been subject to Part 5 of the [MVRMA](#). In setting out the scope of the Licence, the Board endeavoured to provide enough detail to identify and describe the authorized activities, without being unduly restrictive or prescriptive, and to allow for project flexibility, as contemplated in the Application, throughout the term of the Licence.

¹³ See GLWB Online Registry for [G22L3-001 - Tsiigehtchic Municipal WL - Reviewer Comments on Application and Proponent Responses - Mar14 22](#)

Based on the activities described in the Licence Application and on the scope outlined in the Standard Licence Conditions, Board staff included a draft scope in the draft Licence that was circulated for public review. The Board did not receive any comments or recommendations regarding the draft scope during the proceeding, so the Board accepted it as the scope of the Licence.

The conditions in Part A are consistent with the Standard Licence Conditions. These conditions ensure that the scope of the authorization includes all water use and deposits of waste associated with the Project. They also clarify that the Licensee must comply with applicable legislation, including any changes to legislation that are deemed to automatically amend the Licence.

4.2.2 Defined Terms

The Board defined certain terms in the Licence to ensure a common understanding of the conditions, to avoid future differences in interpretation of the Licence, to reflect Project-specific evidence, and to support consistency across licences and permits issued by the LWBs. For the most part, the Board selected applicable defined terms relevant to the Project from the Standard Licence Conditions. Part B: General Conditions and Schedule 1.

4.3 Part B: General Conditions and Schedule 1

Part B of the Licence primarily contains general administrative conditions regarding implementation of the Licence, and compliance with the Licence conditions, Board directives, and LWB policies and procedures. This section also details compliance requirements and review and revision procedures for submissions required under the Licence. These conditions are consistent with the Standard Licence Conditions and are applicable to all licences.

Part B: UPDATES TO COMPLIANCE DATES

Compliance dates are included in the Licence conditions for various submissions and other requirements, and Schedules and a Surveillance Network Program (SNP) are appended to the Licence to set out the detailed requirements associated with specific conditions in the main body of the Licence. The purpose of the Schedules is to provide greater clarity and to aid in interpretation of Licence conditions.

This standard Condition is included in the Licence to clarify that the Board may, at its discretion, update compliance dates, the Schedules, and the SNP, and that such updates are not considered amendments to the Licence, unless otherwise directed by the Board. Such updates may be requested by the Licence in writing at least 90 days in advance, or may be initiated by the Board based on the information

available to it, and will undergo the Board’s public review process before being considered by the Board.

Part B: ANNUAL WATER LICENCE REPORT

The requirements for the Annual Water Licence Report are outlined in Part B: ANNUAL LICENCE REPORT, and Schedule 1, Condition 1. The purpose of the Annual Water Licence Report is to provide the Board and all interested parties the opportunity to be annually updated on Project components and activities and compliance with Licence conditions, and to provide a platform for interested parties to submit comments, observations, feedback, and questions as necessary. The Report is also an important tool for evaluating the effectiveness of the Licence conditions.

In establishing the Annual Report requirements in the Licence, the Board primarily included requirements from the Standard Licence Conditions that are applicable to the Project and reflect the Licence conditions. All of these requirements are intended to provide clarity and summarize information already captured through existing submissions; they are not meant to be onerous. The Board organized these requirements to coincide with the layout of the Licence and to be consistent with the Standard Licence Conditions.

The Annual Water Licence Report is not subject to Board approval. The Annual Report is a submission of monitoring results and activities undertaken during the previous year. If Parties review and have concerns regarding the results reported or activities undertaken as reported in the Annual Report, they can be discussed directly with the Town or addressed through the Board. Annual Reports are posted to the Board's registry, distributed for review and comment, and presented to the Board, even if it is not for approval. Any issues identified can be addressed through a similar process as that with other plans.

For clarity, Annual Water Licence Reports are required each year, regardless of whether the Licensee has conducted any activity during the reporting year.

Part B: REVISE SURVEILLANCE NETWORK PROGRAM

During the Public review, GNWT ENR commented that the SNP monitoring was not undertaken consistently during the last 5 year licence term under G16L3-001.¹⁴ The Board understands that this is due in part to the fact that SNP station 1557-6 has been dry during recent sampling periods, and that SNP 1557-5 is particularly difficult to access. The Board has included the condition REVISE SURVEILLANCE

¹⁴ See GLWB Online Registry for [G22L3-001 - Tsiigehtchic Municipal WL - Reviewer Comments on Application and Proponent Responses - Mar14 22](#)

NETWORK PROGRAM in the Licence renewal. The Applicant shall consult with the Board and the Inspector to review and revise the SNP station locations, so to ensure that the discharge of waste to the receiving environment is being appropriately monitored.

Part B: ENGAGEMENT PLAN

As explained in section 3.1 above, the Board assesses engagement adequacy through the MVLWB [Engagement and Consultation Policy](#) and [Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits](#).

Municipal engagement requirements are not explicitly outlined in the Guidelines and Policy, and the GLWB has not typically required pre-submission engagement for municipal licence renewals being carried out by local governments.

During the Public review of Application G22L3-001, GTC DLR commented that there may be users of Tso Vahn and/or other community members who may wish be engaged with respect to Project. GTC DLR recommended that engagement take place.¹⁵

The Board has subsequently included condition B.21 ENGAGEMENT PLAN requiring the community to undertake engagement and submit to the Board for approval an Engagement Record and Plan. Once submitted, the Engagement Plan will undergo the Board's standard public review process before being considered by the Board.

4.4 Part C: Conditions Applying to Security Requirements

The Board did not include security requirements in the Licence because it is a municipal licence, and the Applicant is a community government. As per section 94 of the [MVRMA](#), territorial and federal governments are not required to post security for permits; although this exemption does not apply to community governments or licences, it has been Board practice to not require security for municipal projects when the applicant is a community government. The Board is satisfied that the Licensee will be accountable for carrying out closure and reclamation even though a security deposit is not required.

¹⁵ See GLWB Online Registry for [G22L3-001 - Tsiigehtchic Municipal WL - Reviewer Comments on Application and Proponent Responses - Mar14 22](#)

4.5 Part D: Conditions Applying to Water Use

Part D of the Licence contains conditions related to water use for the Project. These are consistent with the Standard Licence Conditions.

During the Application review GTC DLR commented that the community has only been withdrawing around 6,000 m³ per year, which is significantly less than the 20,000 m³ /year requested by the Licence.¹⁶

In consideration of this comment the Board has reviewed the community's past licences. Maximum withdrawal volumes for the community were set at 20,000 m³/year in 2016, 2015, 2005, and 2000.

Given that there were no impacts to Tso Lake identified, nor any public concerns surrounding the applied for volumes, and considering the possibility of fluctuating need or emergency uses in the coming licence period, the Board has decided to approve the 20,000 m³ / year volume requested.

4.6 Part E: Conditions Applying to Construction and Schedule 2

Part E and Schedule 2 of the Licence contain conditions applying to Construction activities for the Project. These are consistent with the Standard Licence Conditions. These conditions ensure that Engineered Structures are built to appropriate standards and require the submission of design and engineering reports. The Board can ensure that monitoring requirements are in place prior to, during, and post-construction.

The intent of the DESIGN AND CONSTRUCTION PLAN condition is to ensure the Licensee submits the Design and Construction Plans for Engineered Structures. As these Plans are for Board approval, they will be publicly reviewed, allowing for the incorporation of comments or concerns raised. Schedule 2 was developed from recently issued municipal water licences across the Mackenzie Valley.

4.7 Part F: Conditions Applying to Waste and Water Management and Schedule 3

Part F and Schedule 3 of the Licence contain conditions applying to Waste and Water management activities for the Project. These are consistent with the Standard Licence Conditions.

Part F: OPERATIONS AND MAINTENANCE PLANS

¹⁶ See GLWB Online Registry for [G22L3-001 - Tsiigehtchic Municipal WL - Reviewer Comments on Application and Proponent Responses - Mar14 22](#)

All applicants must submit detailed waste management information, identifying all types of waste that will be produced by the project (including quantity and quality) and describing the disposal methods that are proposed for each type of waste. Municipal applicants must submit waste management information in Operations and Maintenance Plans (O&M Plans). The Applicant submitted O&M Plans for the proposed wastewater (sewage) treatment systems, water treatment plants, and solid waste facilities. The Board's decisions on these Plans are detailed in the following subsections.

SEWAGE DISPOSAL FACILITIES OPERATION AND MAINTENANCE PLAN – REVISED

The Board has not approved the Sewage Disposal Facilities O&M Plan (SDF OMP), Version 1.0 as submitted with the Application. The Licensee must revise the Plan and submit SDF OMP Version 2.0, within 90 days of the effective date of the Licence, to reflect updates as agreed to during the regulatory proceeding, to reflect the proposed activities, to meet the applicable guidelines. These revision requirements are outlined in Schedule 3, Condition 1.

During the public review of the Application, parties raised the following concerns regarding the SDF: ¹⁷

- Lagoon freeboard exceedance;
- Algal growth in lagoon; and
- Sludge management

It is the Board's expectation that the above items, and any community priorities identified during the engagement process, will be considered by SDF OMP Version 2.0. Once submitted, the revised Plan will undergo the Board's standard public review process before being considered by the Board.

SOLID WASTE DISPOSAL FACILITIES OPERATION AND MAINTENANCE PLAN – REVISED

The Board has not approved the Solid Waste Disposal Facilities O&M Plan (SWDF OMP) Version 1.0 as submitted with the Application. The Licensee must revise the Plan and submit SWDF OMP Version 2.0, within 90 days of the effective date of the Licence, to reflect updates as agreed to during the regulatory proceeding, to reflect the proposed activities, to meet the applicable guidelines. These revision requirements are outlined in Schedule 3, Condition 2.

During the public review of the Application, parties raised the following concerns regarding the SDF: ¹⁸

¹⁷ See GLWB Online Registry for [G22L3-001 - Tsiigehtchic Municipal WL - Reviewer Comments on Application and Proponent Responses - Mar14 22](#)

- Unlimited access to SWDF;
- Windblown debris;
- Wildlife attraction;
- Infrequent placement of cover;
- Hazardous waste segregation and storage;
- Removal of fluid from vehicles/appliances;
- Runoff/leachate management ;
- Groundwater contamination and monitoring; and
- SNP monitoring

It is the Board’s expectation that the above items, and any community priorities identified during the engagement process, will be considered by SWDF OMP Version 2.0. Once submitted, the revised Plan will undergo the Board’s standard public review process before being considered by the Board.

WATER TREATMENT FACILITIES OPERATION AND MAINTENANCE PLAN – REVISED

The Board has not approved the Water Treatment Facilities O&M Plan (WTP OMP), Version 1.0 as submitted with the Application. The Licensee must revise the Plan and submit WTP OMP Version 2.0, within 90 days of the effective date of the Licence, to reflect updates as agreed to during the regulatory proceeding, to reflect the proposed activities, to meet the applicable guidelines. These revision requirements are outlined in Schedule 3, Condition 3.

During the public review of the Application, parties raised the following concerns regarding the SDF: ¹⁹

- Backwash management
- Fish screen use

It is the Board’s expectation that the above items, and any community priorities identified during the engagement process, will be considered by SWDF OMP Version 2.0. Once submitted, the revised Plan will undergo the Board’s standard public review process before being considered by the Board.

¹⁸ See GLWB Online Registry for [G22L3-001 - Tsiigehtchic Municipal WL - Reviewer Comments on Application and Proponent Responses - Mar14 22](#)

¹⁹ See GLWB Online Registry for [G22L3-001 - Tsiigehtchic Municipal WL - Reviewer Comments on Application and Proponent Responses - Mar14 22](#)

Effluent Quality Criteria

The Board's approach to managing the deposit of waste to the receiving environment through water licence conditions is described in the MVLWB [Water and Effluent Quality Management Policy](#).

Part F: EFFLUENT QUALITY CRITERIA - SEWAGE

The Licence includes EQC for the discharge of sewage from SNP 1557-4 as per Part F: EFFLUENT QUALITY CRITERIA - SEWAGE and Table 1 below.

Table 1: Sewage Discharge EQC for Water Licence G21L3-001

<u>Parameter</u>	<u>Maximum Grab Concentration (mg/L)</u>
Faecal Coliforms	1 x 10 ⁶ FC/100mL
Suspended Solids	180 mg/L
Biological Oxygen Demand	120 mg/L

In addition to meeting the above EQC, the Licensee shall ensure that the effluent discharged from SNP 1557-4:

- a) has no visible sheen of oil and grease; and
- b) has a pH value between 6 and 9.

Determination for EQC for Sewage Discharge

The Board carried over the EQC from licence G16L3-001. During the Public review of the Draft Water Licence, the Board received no comments or recommendations to change the EQC.

Part F: HYDROCARBON CONTAMINATED SOIL

The Board has included the HYDROCARBON CONTAMINATED SOIL condition, which prohibits the community from accepting contaminated soil and snow at the SWDF. During the Application Public Review, ECCC requested that the Applicant clarify how hydrocarbon contaminated snow and soil are being managed. The Applicant requested that specific direction regarding the acceptance of these materials be written into the licence and suggested that if the facility is not equipped to manage the

waste being received, that the community should not be accepting it.²⁰ The Board has concerns regarding the community's capacity to properly manage hydrocarbon-contaminated materials, and notes that a public soil treatment facility is now in operation in Inuvik.

4.8 Part H: Conditions Applying to Contingency Planning

Part H of the Licence contains conditions related to spill contingency planning and reporting, reclamation of spills and unauthorized discharges, and emergency response for the Project. These conditions are consistent with the Standard Licence Conditions.

Part H: SPILL CONTINGENCY PLAN - REVISED

All applicants must describe spill contingency planning. For municipal applicants, this will be in the form of a Spill Contingency Plan (SCP), developed in accordance with the MVLWB Spill Contingency plan O&M template. Licences will include standard conditions regarding compliance with the Plan, as approved by the Board.

The Licensee included a SCP in the Application.²¹ The Board considered this Plan as part of the Application Package.

During the public review period, GNWT ENR recommended that the SCP be revised to include updated contact information, maps, spill kit inventory and information pertaining to hazardous waste shipping. GTC DLR also recommended that contacts be updated, that hazardous waste shipping information be clarified, that spill kit inventory be confirmed. It also recommended that training be improved and include mock spill sessions. The Applicant responded to the comments and committed to updating the SCP.²²

The Board has not approved the SCP, Version 1 as submitted with the Application. The Licensee must revise the Plan and submit Version 2, within 90 days of the effective date of the Licence, to reflect updates as agreed to during the regulatory proceeding, to reflect the proposed activities, to meet the applicable guidelines, and to address the comments received during the public review of the Application.

²⁰ See GLWB Online Registry for [G22L3-001 - Tsiigehtchic Municipal WL - Reviewer Comments on Application and Proponent Responses - Mar14 22](#)

²¹ See GLWB Online Registry for [G22L3-001 - Tsiigehtchic Municipal WL - Appendix D -Spill Plan - Jan04 22](#)

²² See GLWB Online Registry for [G22L3-001 - Tsiigehtchic Municipal WL - Reviewer Comments on Application and Proponent Responses - Mar14 22](#)

Once submitted, the revised Plan will undergo the Board's standard public review process before being considered by the Board. To ensure that no spills occur before appropriate spill response procedures and equipment are in place, the licensee shall operate in accordance with the existing plan until such a time as the revised plan is approved.

4.9 Part I: Conditions Applying to Closure and Reclamation and Schedule 3

Part I and Schedule 3 of the Licence contain conditions applying to closure and reclamation, including progressive reclamation of the Project. These are consistent with the Standard Licence Conditions.

Part I: CLOSURE AND RECLAMATION PLAN

All applicants must describe closure and reclamation planning. For most applicants, this will be in the form of a Closure and Reclamation Plan (CRP).

Conceptual closure and reclamation plans were not included in the O&M Plans submitted with the Application. Due to the on-going nature of municipal operations, municipal licences do not typically require the development of a site-wide CRP; however, prior to closure and reclamation of any specific facility, the licensee must submit to the Board, for approval, a Component-Specific CRP. Accordingly, Condition 1.2 and Schedule 3 set out the requirements for Component-Specific CRPs for the facilities included in the scope of the Licence. All Component-Specific CRPs for the Project must include, at a minimum, the applicable contents of Tables 8.1 and 8.2 of Environment and Climate Change Canada's *Solid Waste Management for Northern and Remote Communities: Planning and Technical Guidance Document*.

4.10 Annex A: Surveillance Network Program

Annex A of the Licence contains conditions applying to the Surveillance Network Program (SNP). The SNP details the sampling and monitoring requirements related to compliance with several conditions in the Licence. Requirements for measuring flows, volumes, and other data are based on standard licence conditions as are the reporting requirements.

SNP stations 1557-3 and 1557-4 were established in 1991 under NWT Water Board Licence N7L4-1557, while SNP Stations 1557- 5 and 1557-6 were added in 2005.²³ EQC and monitoring parameters were established in 2000.²⁴

²³ See GLWB Online Registry for [G99L3-004 – 2005- Licence and Conditions](#)

²⁴ See GLWB Online Registry for [G99L3-004 – 2000 - Licence and Conditions](#)

The Board notes that regular sampling has not been taking place. Inspection reports have shown that collecting samples from the SNP stations can be challenging: SNP station 1557-4 requires the sampler to travel by boat across the “E” Lake sewage lagoon, SNP station 1557-5 is in a difficult to access area that is overgrown with willow, and SNP station 1557-6 has been dry during the inspector’s most recent visits.²⁵

During the public review of the Application, GRRB recommended that the Board analyze SNP monitoring data for the SWDF to determine if surface or groundwater contamination was taking place. The Board acknowledges that no meaningful analysis can be made in the absence of monitoring data.²⁶

During the public review of Draft Water Licence G22L3-001, GNWT ENR recommended that the SNP program be reviewed, and ether access improvements be made, or new locations be considered for SNP 1557-5 and 1557-6, given the challenges associated with sampling.²⁷

The Board has decided to carry over the SNP parameters, as community use of water and deposit of waste has not changed significantly since the last Licence renewal. The parameters are also consistent with the requirements of other municipal water licences, and no recommendations to update them were received during the Application review.

The Board has decided to add the REVISE SNP condition to the Water Licence. This condition requires the Licensee to submit to the Board, for approval, a proposal to revise the Surveillance Network Program within twelve months of Licence issuance. The proposal shall review the current SNP station locations, determine if they are appropriate, and provide alternative locations and/or sampling frequencies, as required.

4.11 Annex B: Table of Submissions

Annex B of the Licence contains a table that summarizes the submissions required by the Licence conditions.

²⁵ See GLWB Online Registry for [G16L3-002 - August 21 2020 Inspection Repot - Jan13 21](#)

²⁶ See GLWB Online Registry for [G22L3-001 - Tsiigehtchic Municipal WL - Reviewer Comments on Application and Proponent Responses - Mar14 22](#)

²⁷ See GLWB Online Registry for [G22L3-001 - Tsiigehtchic Municipal WL - Reviewer Comments on Draft Water Licence and Proponent Responses – Apr22 22](#)

4.12 Annex C: Table of Revision History

Annex C of the Licence contains a table which identifies updates and tracks changes made to the Licence. This table is currently blank because this is a newly issued Licence, but it will be updated throughout the life of the Licence.

5.0 Conclusion

Subject to the scope, definitions, conditions, and terms set out in the Licence, and for the reasons expressed herein, the GLWB is of the opinion that water use, and waste disposal associated with the Project can be completed by the Charter Community of Tsiigehtchic while providing for the conservation, development, and utilization of waters in a manner that will provide the optimum benefit for all Canadians and in particular for the residents of the Mackenzie Valley.

Water Licence G22L3-001 and contains provisions that the Board deems necessary to ensure and monitor compliance with the MVRMA, *Waters Act*, and the Regulations made thereunder, and to provide appropriate safeguards in respect of the Charter Community of Tsiigehtchic's use of water and deposit of waste as authorized by the Licence.

SIGNATURE



May 9, 2022

Elizabeth Wright, Chair
Gwich'in Land and Water Board

Date